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ABSTRACT

This book reexamines the meaning of education, and attempts to weave several major themes into a new model for education. Part 1 discusses the interrelatedness of culture, values, and learning. Three types of learning are self-motivated learning; instruction; and most importantly, model building, which is creating a meaningful structure or worldview for handling data. Each culture influences its people's model-building activity--this is acculturation. Part 2 divides cultures into three groups: preindustrial, industrial, and postindustrial. A preindustrial culture could depend on the assimilation of its values by youth in a natural unforced manner. An industrial culture cannot afford to do so because of tensions inherent in the lifestyle itself. The formal institution, "school," is one of the mechanisms created to shield children from alien values and expose them constantly to the culture. Schools channel children's energy towards the acquisition of skills needed in the economy. The essential nature of the learning process is strongly interfered with in industrial cultures. Postindustrial cultures are defined by freedom from physical exertion for survival necessities as a result of advances in communications, transportation, and production technologies; these cultures place high value on creativity, originality, curiosity, and wisdom. U.S. culture is making the transition to a postindustrial culture. Transitional schools that are fully democratic social organizations, and that allow self-motivated exploration, unfettered model-building, and play are needed. Appendices present publications of Sudbury Valley School dealing with educational philosophy, a summary of the theory of organic thinking, and the role of play at Sudbury Valley School (TD)

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A NEW LOOK AT SCHOOLS

Daniel Greenberg

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A NEW LOOK AT SCHOOLS

Daniel Greenberg

Sudbury Valley School Press

To my colleagues and friends at
Sudbury Valley School
who made it all possible

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CONTENTS

INTRODUCTION

The Continuing Crisis in American Education 1

PART I VALUE SYSTEMS AND EDUCATION

1 Culture and the Value System 11
2 Cultural Pluralism in the United States 15
3 The American Value System 25
4 Learning 31
5 The Maturation of the World View 37

PART II CULTURAL STYLES OF LIVING

6 Defining the Pre-Industrial Culture 43
7 Defining the Industrial Society 49
8 Stabilizing the Industrial Culture 55
9 Tensions Inherent in Industrial Culture 75
10 The Post-industrial Life Style 83

PART III LOOKING FORWARD

11 Raising Children in the Post-industrial Age 95
12 The Need for a New Type of School 105
13 Transition Schools 109
14 Education Beyond Schools 115

A FINAL NOTE 119

APPENDIX A

Publications of The Sudbury Valley School Dealing with Educational Theory 121

APPENDIX B

A Brief Summary of the Theory of Organic Thinking, as Explained in the Words of its First Theoretician, Max Kadushin 125

APPENDIX C

The Role of Play at Sudbury Valley School 139

INTRODUCTION The Continuing Crisis in American Education

That our schools have been in trouble for over a generation is too well known to require elaboration. Virtually everyone, in and out of the world of education, has become aware that something is amiss. The onset of widespread recognition that the U.S. educational system faces serious problems can be traced to the immediate post-Sputnik era of the late 1950's. From that time on, there has been a ceaseless stream of studies and reports made by private individuals, foundations, think-tanks, and government sponsored missions, for the purpose of achieving insight into the nature of the disorder in the educational system and the remedy to be applied.

Over the years, the full range of expected responses have been made -- responses that, throughout history, have always been trotted out to deal with socio-political unrest; responses that, invariably, have never succeeded:

Tighten up discipline. A number of observers have felt that the root problem with modern American schools is lax enforcement of discipline. Various measures have been proposed, and occasionally instituted, including in some communities the introduction of

armed police within the confines of the school campus. Tougher academic discipline, higher standards, and more difficult coursework are other facets of this approach.

Loosen the reins a bit. An excess of control, mostly deemed unnecessary, has been singled out as the root cause of the failure of schools. Proposals for student participation in school governance, for greater freedom in choosing subjects of study, and for more gentle treatment of students who pose learning or social problems, have received wide attention. A precursor of this trend was the visionary work of A. S. Neill, in his writings and in his school, *Summerhill*.

Improve the quality of leadership. Many suggestions are constantly being made to modify the training of teachers and administrators so as to improve the efficacy of the schools in which they work. The focus here is on the personnel who are given authority over students, rather than on curriculum or structure per se. Although there is little to show by way of concrete achievements for any of the new trends in training, one striking success of this movement has been to gain widespread public acceptance for frequent sizable increases in salaries for school personnel, on the theory that the larger the salaries the better the quality of the work delivered, and the better the quality of the people attracted to the field.

Provide more supervisors. Much has been said on the desirability of increasing the teacher/pupil ratio as a key means of improving education. One school of thought holds that the Mark Hopkins ideal of a one-to-one teacher/pupil ratio is the goal to be approached as closely as possible, if we are to have an

effective school system. The argument is regularly heard that smaller classes mean better schools.

Create new areas of supervision. In the last 30 years, more new job categories have been created in schools than were in existence prior to that time. These new categories include not only new curriculum subjects, but also support categories in guidance, counseling, psychological evaluation and treatment, health- and welfare-related fields, and specialists in groups of curriculum subjects. In addition, several new administrative layers have been added to the system, to coordinate, organize, and supervise additional personnel. After salary increases, growth in the number of school personnel has been the single largest contributor to rising school costs.

Spend more money. That more money must buy a better product is axiomatic in educational circles. Before there is even a clear idea of what is to be bought, the cry is raised to appropriate more funds for schools. Comparisons are regularly published among per pupil expenditures in various regions of the country, and the a priori conclusion is invariably drawn that the regions with lower costs must upgrade their schools by spending more.

Require more reports. These include ever more frequent evaluations of student performance and assessments of students' psychological profiles, all tools in the effort to encourage or force students to exhibit behavior more in line with the expectations of school officials; evaluations of teachers performance in the hope that a key will be found in the teachers' activities to unlock the mystery of school inadequacy; and evaluation of schools and school systems through comparative testing of pupils with the aim of identify-

ing model systems that have succeeded where the majority have failed.

Provide more entertainment. Major curriculum reforms, beginning with the revamping of math and science instruction under the supervision of university professors in the early '60's, have virtually all focussed on stimulating supposedly dormant (but reachable and controllable) student interest through the mechanism of providing a good show laced with striking attention-getting features. Great stress has been placed on novelty, on stylish packaging (for example, expensive and lavishly produced textbooks), on multi-media approaches, on group teaching, on field trips, and on extravagant displays of teacher virtuosity. Much money has been expended on these entertainments by governments at every level and by private foundations, and a great premium has been placed on building -- de novo or through extensive rehabilitation of existing structures -- exotic school facilities designed to entice students into wanting to spend their time within their confines.

Change the agenda. Not only have existing subjects been packaged in repeatedly new forms, but also a host of new subjects and study requirements have been introduced into schools in a vain attempt to devise curricula that will satisfy what are perceived by school authorities to be society's current (and ever-changing, but still identifiable) needs. A comparison of curriculum offerings and requirements in the 1980's with those in the 1940's shows this multiplication of

subjects dramatically[1]. When new fields are added, old ones are rarely removed, as what we are dealing with is not the shifting foci of a small finite group of

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[1] It seems that no subject is too far-fetched to appear worthy of being added to the curriculum. See, for example, Keith Kennedy, *Film Making in Creative Teaching* (New York: Watson-Guptill, 1972). The American introduction to this British book, written by James Beveridge, comments on page 12: "...teachers may well consider that film can be used and taught in a way which will genuinely enrich the learning process. The student stands to gain in heightened powers of perception and expression; he adds a useful skill to his repertory; he tends to become a more useful and thoughtful citizen, seeing his own community with new insight. *Perhaps film will become, like language, a basic tool...*" [italics added]

The difficulties of determining an appropriate secondary-school curriculum are exhibited dramatically in the exercises that make up Part II (pages 71-140, entitled "The Program") of Theodore R. Sizer's *Horace's Compromise: The Dilemma of the American High School* (Boston: Houghton Mifflin, 1984). At one point Sizer takes a tentative stab at curriculum reform, seemingly cutting down on the bewildering multitude of subjects that have to be covered (p. 132): "Let me give you the beginnings of one model. I would organize a high school into four areas or large departments: 1. Inquiry and expression. 2. Mathematics and Science. 3. Literature and the Arts. 4. Philosophy and History." That would seem to cover just about everything, as it is intended to. But just in case anyone might misconstrue his approach as minimalist, Sizer disabuses us with the examples he gives, albeit sketchily. Thus he tells us (p. 133) that "one often can engage [History] well first through autobiography and then through biography, proceeding finally to the 'biographies' of communities, which make up most conventional history. Things were as they were for reasons, and from these incidents evolve concepts in geography, economics, and sociology." And so forth. Nothing should be left out; the challenge is simply in making sure that *everything* is somehow tied in to whatever titles the curriculum subjects happen to have.

topics, but rather a frenetic attempt to keep up with the explosion of new interests during this period, an attempt doomed to failure, as we shall see.

Invent new slogans. Slogans have always been important tools in the hands of reformers. Slogans are brief, vague, but moving, and they are meant to be stimuli to the emotions of masses of people. Lenin was the first to expound at length on the importance of slogans as instruments of change; but activists have intuited this from early times. The Bible is full of slogans, as were the psychological arsenals of all inspiring national leaders. In education, slogans have provided rallying cries for educational reformers, and have been used with increasing frequency in recent times: "freedom without license," "the right to read," "back to basics," "why Johnny can't read," etc.

Appeal to greed. An education used to be valued for its own sake. The idea that it is a worthwhile human endeavor to improve the mind through learning has long been widely touted. The breakdown of the modern school system has been interpreted by many people as a collapse of virtue, a degeneration of the human ideal of intellectual self-improvement. To bail out the schools, attempts have been made to represent them as a path -- indeed, the only path -- to riches, as the key that unlocks the door to financial success throughout adult life. An unschooled child is seen as confined for life to low-paying, menial jobs, while a schooled child increases his future earnings with every additional year of schooling.

Arouse moral fervor. When all else fails, leaders always try to appeal to some deep-rooted ethical values shared by the population at large. Educators appeal to *parents* and *adults* on the basis of

their obligation to nurture the future generation; educators appeal to *children* on the basis of their duty to elevate themselves above the social level at which they were born. The infusion of moral exhortations into discussions of learning and schooling has increased dramatically in recent times, a clear sign of public desperation in the face of a phenomenon (viz., the failure of schools) that people do not understand and cannot overlook.

None of these techniques, singly or in groups, have changed the picture, nor would recorded human experience lead us to believe that they could do so. It would appear obvious that what has been needed for some time is a completely fresh view of the educational enterprise and its role in the overall cultural setting. However, I know of only one school in existence that has attempted to form itself on the basis of such a thoroughgoing new assessment of the current and future world scene: Sudbury Valley School, founded in 1968, designed from the onset to deal *de novo* with the fundamentals of educational theory.[2] Since its creation, Sudbury Valley has produced a considerable mass of literature dealing with basic concepts and their application to the current socioeconomic reality in the United States.[3]

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[2] See Daniel Greenberg, *Announcing a New School* (Framingham: Sudbury Valley School Press, 1973), which provides the background and history of the school's establishment.

[3] For a complete list of relevant publications put out by the school's press, see Appendix A.

Now, as the educational crisis reaches its fourth decade, and as the 21st century looms a mere dozen years away, the time seems ripe for a new look at fundamentals, enriched by the experience of the preceding years. This book is written with the intention of re-examining the meaning of education, teaching, learning, and schooling, as these terms apply today and in the coming age. I will single out what I take to be the major themes that must be understood to form a meaningful philosophy, and I will attempt to weave these into a coherent model for the practice of education.

PART I

Value Systems and Education

1 *Culture and Value Systems*

Education is but one of a number of core activities engaged in by any culture and, like all the others, can only be analyzed against the background of the culture's total value system. Although I intend to focus on the situation at present in the United States, I shall, for the purpose of shedding more light on the entire problem, review some of the salient features of other cultures in the present world and at other times.

At this point, and elsewhere in this book as necessary, I shall introduce some definitions which are needed for a proper understanding of what I am trying to say.

By "culture" I mean the shared value system of a group of people, and the immediate manifestations of that value system. This is a sensitive point, and one not sufficiently appreciated by persons in policy-making positions. Cultures are not distinguished by race, by nationality, by language, or by physical location, even though at times separate cultures may chance to be isolated according to one or more of these factors. *Value concepts* are the key building blocks of culture, and their concretizations in everyday life activities constitute the essence of the culture. The nature of

value concepts is only now being elucidated, albeit in a tentative and schematic manner. We are just beginning to understand that value concepts are not logical constructs in the sense of Greek philosophy (as adapted through the ages by Western thought), but are abstract symbols, each of which is chosen to represent a spectrum of attitudes and responses in the context of a large inter-related web of value concepts that constitute an organic whole. The symbols are almost always words, but the words themselves are not value concepts; they are representatives of value concepts that have meaning only in the context of the culture's total value-scheme.

The nature of value concepts and value systems was first grasped with clarity by Max Kadushin, whose many publications expounded on his theories and provided examples of their application, with special emphasis on Rabbinic value concepts[4]. Kadushin's great contribution was in understanding the essence of value concepts and their existence outside traditional Greek philosophical systems. Until his works appeared, ethical philosophers had grappled unsuccessfully with the insoluble problem of embedding values in a Greek-style logical framework. Appendix B contains a summary by Kadushin of the salient points of his classic exposition.

These subtle and elusive points have not yet been adequately explored, nor have they yet entered the mainstream of philosophy, though they are slowly

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[4] See, for example, *Organic Thinking* (New York: Jewish Theological Seminary of America, 1938); *The Rabbinic Mind*, 2nd edition (New York: Blaisdell, 1965).

working their way into it. They are, however, indispensable to understanding not only the nature of each particular culture, but also the nature of cultural interaction. Without an understanding of individual value concepts and their linkage into an organic cultural value scheme, there is no way to appreciate the meaning of a culture or to grasp its goals and its perceived reasons for existence. Nor is it possible to assess the problems one culture has in relating to another, when such inter-cultural relationships are sought or are imposed. Two cultures meeting one another, each with its own system of value-concepts, are *prima facie* as alien to each other as if they spoke different languages (as they often do anyway!) or inhabited different worlds. An enormous effort is required on the part of leaders and members of each of the confronting cultures to understand the other's value schemes. The difficulty of such an undertaking of mutual understanding is staggering, inasmuch as the usual method by which a culture conveys its content to newcomers (children, or adult "immigrants") is through years of experiential absorption, wherein symbols and realities are repeatedly illustrated and linked until the cultural network is finally re-created in each individual member's mind. There is as yet no known short-cut that enables a person from the outside to enter into a culture's value scheme without long immersion and patient application.

Perhaps surprisingly, the difficulty of cross-cultural understanding can be increased if the two cultures share the same language. It is a commonplace that translations from one language to another never really get things "right" -- as much due to cultural differences as to linguistic differences. What is less appreciated is

that two cultures sharing the same language invariably use the same word symbol to designate substantially different value concepts embedded in totally different value schemes. In such a situation, the common language often masks the deep underlying cultural differences, and the misunderstandings arising from such (usually innocent) divergence of meanings for a given word are all the harder to overcome because the parties seldom realize their true origin.

2 *Cultural Pluralism in the United States*

The United States today represents a culture, the nature of which I shall presently address. First, however, I must point out an extraordinary new value concept of special importance to U.S. culture, one which has had no close relative ever before: the value concept symbolized by the phrase "cultural pluralism." Since this means, in U.S. culture, something entirely different from what it has meant in other cultures, it is necessary to elaborate somewhat at this juncture.

Two models have prevailed throughout history for the common situation where several cultures are forced to coexist within a delineated region under one governmental authority. The most common model has been *domination*, where the culture that has won a physical test of strength imposes itself on the others and seeks to wipe them out. If the dominant culture succeeds in maintaining control for a long enough period of time, and has the collective will to persevere, it usually succeeds in achieving its aim; indeed, history is littered with the remains of hundreds of cultures that have been extinguished, often without leaving more than a trace to remind us of their existence.

In the process of extinguishing a subservient culture, the dominant culture often absorbs into itself many facets of the other, as in the classic example of Roman and Greek culture. Indeed, in that instance, it is debatable which culture ultimately "dominated," as so many Greek value concepts worked their way into the Roman style.

A second, rarer model has been that of *coexistence* (often labeled "cultural pluralism" -- a label I will avoid, as I am reserving it to be used exclusively for the unique U.S. concept it represents). In this model, the several cultures thrown together under a single overall governmental rule are granted by the ruler extensive autonomy, and prevented by the ruler from engaging in destructive physical clashes that would disrupt the social order. At various times, in various places, certain ancient empires practiced this model; for example, the ancient Persian empire was noted for its tolerance, and won for itself much loyalty from conquered cultures due to this policy. More recently, the Austrian (and, later, Austro-Hungarian) empire strove mightily to derive strength from this form of governance. Indeed, the success of the Austro-Hungarian empire in maintaining relative peace and harmony among a very large number of traditionally hostile co-existing cultures has been little appreciated by historians, and barely touched in the curriculum of European history as taught in this country. This is a regrettable oversight. Much can be learned from the clever and valiant attempts of the Hapsburg rulers and their advisers, and from the leaders of the cultural communities under the Hapsburg rule. It is no accident that these rulers long played an important role in European history, or that Metternich, an Austrian diplomat, set the stage in the

Conference of Vienna for a century of relative peace throughout the Western World, a feat never matched before or since.

In this model, no single culture is dominant, no culture is allowed to impose its ways on another, and the integrity of the individual cultures is often reinforced by allotting to each one limited physical control over a semi-autonomous region (sometimes large, often quite small), thus promoting a somewhat artificial equivalence between a geographic region and a particular culture. The extent to which this equivalence lacks a basis in reality was illustrated explosively in the aftermath of the First World War, where the attempt to bestow national sovereignty over the particularized regions of the defunct Austro-Hungarian empire bogged down in a mass of massacres, treaties, litigation and the ultimate chaos of World War II. The sheer impossibility of setting up physical boundaries in Central Europe that enclosed a single cultural group (and no other) led at first to the insertion, as a condition of independence for each of the newly formed states, of a minorities' rights clause in their constitutions, which was to be enforceable under international law.[5] Nevertheless, the yearning of each cultural group within each state somehow either to gain autonomy or to join hands with the state (if there was one) in which their culture dominated, led ultimately to the Second World War. Hitler grasped that he could lay hold of a debilitatingly disruptive force in this yearning, and gain

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[5] For a profound discussion of this subject, written by a person deeply involved in its elaboration, see Jacob Robinson and others, *Were the Minorities Treaties a Failure?* (New York: Institute of Jewish Affairs, 1943).

the passive or active approval of much of the world as he was so doing. Thus the forces that tore apart Danzig, Poland, Austria and Czechoslovakia were seen as understandable, and worthy of sympathy from reasonable people. The Munich agreement, which made the Second World War inevitable, was the ultimate embodiment of this successful Hitlerian policy, and of the folly of attempting to equate culture and geographical region in the modern world.

The classic example of partial geographical autonomy for a culture is the fate of the Jews. For several centuries in much of Europe, this mechanism of cultural coexistence was forced upon the Jews, giving rise to their ghettos, the existence of which did not always displease Jewish leaders. The Jews were accorded cultural rights of coexistence even under the rulers who otherwise imposed cultural dominance on all their vassals. This Jewish anomaly was an accident of history, whose origin was in Christian religious dogma, which required maintenance of a Jewish community of "disbelievers" until the "Second Coming."

Only in the United States did a wholly new model of cultural interaction develop, side by side with failed attempts to adopt the other two models. For example, in its dealing with Native American cultures, the industrial U.S. culture alternatively sought dominance (through assimilation and Westernization of the Indians) and coexistence (by granting Indians sovereignty over delineated regions, most recently over Reserva-

tions).[6] In its dealings with persons of African extraction, the route of dominance was pursued with brutal single-mindedness. The success of this policy led to the complete severance of Afro-Americans from their cultural roots, a process which has been much lamented in recent times. Attempts to make African culture a major component of black American culture have suffered from a discontinuity of over 150 years, and consequently have not been successful in involving a large portion of the black community. One anticipated result of these attempts has been to introduce many significant symbols of Africanism among blacks; but the total immersion necessary for the transmission of a culture from one group to another is lacking, and will always be lacking.

Both models were employed at different times within and among the various European cultures that dominated American immigration. At first, independent geographical regions were claimed by different cultures under the international rights conveyed by discovery (i.e., European discovery). Each region had its own dominant culture to the virtual exclusion of others. Later, as the United States gained independence and the new nation chose to grow by absorbing into itself the regions and populations of many European cultures, coexistence vied with domination -- domination by a uniquely New World American culture rooted in English origins. The latter became the major theme toward the end of the 19th century, when

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[6] See *Village Journey*, by Thomas R. Berger (New York: Hill and Wang, 1985) for an excellent review of the history of this alternating pattern in the U.S.

successive waves of immigration came into the country, and the concept of "melting pot" became the favorite simile of the era. The symbol has little to recommend itself, and suggests cannibalism as strongly as it suggests any of its intended meanings. At any rate, by the mid-20th century the idea was finally dropped altogether.

Even as the two traditional models were being employed, the United States was developing, ever so painstakingly, a new idea, that of *cultural pluralism*. Because of the subtlety and novelty of this value concept, it has taken a long time to establish itself in the U.S. value scheme, and indeed the process is yet far from complete. But the elements of the idea can be detected in countless concrete actions that have characterized this country's experience over the past several hundred years.

Basically, cultural pluralism consists of *embedding* any number of distinct cultures in a single unifying culture, in the following manner: the unifying culture ("U.S. culture"; "The American Way") consists of a *limited* collection of value concepts, organically linked with each other, but not sufficiently rich in number or content to constitute, alone, a fully developed way of life; this value-scheme, however, is universal, in that it is shared by all persons within the overall U.S. culture and is adopted into the framework of all the distinct cultures that are embedded within the unifying culture.[7] The embedded cultures, in turn, by becoming

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[7] It is worth noting that not all cultural groups have chosen to be part of the American Way. A few have chosen to get out, by establishing closed enclaves assuring their physical and

(continued...)

part of the U.S. culture, acknowledge the addition of the U.S. value scheme as an integral part of their own expanded cultural value system; in doing so, the embedded cultures depart from their traditional cultural value schemes and expand their traditional schemes to embrace, as part of an organic whole, the value concepts of the unifying culture. Thus, in cultural pluralism, the embedded cultures retain much of the character of the traditional cultures from which they have emerged, but differ significantly from their prior root cultures through the organic integration of the American value scheme; and the unifying culture, in turn, recognizes its incompleteness as a full way of life and abjures any claim to be a whole culture in and of itself, but is rather an organic value scheme that is common to all the embedded cultures, is shared by them, links them, and becomes *through them* (and only through them) a way of life for individual persons who are participants in the unifying culture.

This has come to be the accepted understanding of the constitutional doctrine of separation of Church and State. The doctrine originally was narrowly understood, and simply forbade the government from declaring a particular religion to be the official state church, as was the case throughout Europe. The doctrine was the only practical way to have a single government rule over a conglomerate nation -- itself a new concept. More recently the concept of religion has been understood in constitutional law to mean any cultural value-

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[7](...continued)
cultural isolation (see ahead for this mechanism of sustaining a culture in the modern world). In a small number of cases, the governmental authorities have allowed them their wish.

system, and the doctrine of separation has embodied the concept of cultural pluralism: it is taken to mean that the cultural group is responsible for dealing with the *full* spectrum of value concepts, while governmental authorities, who represent the unifying culture, are limited to dealing with the propagation of only the universal value-concepts.

The enormously significant consequences of this new idea of cultural pluralism are now beginning to be understood, however poorly. Two especially significant features are becoming clear. First, it is evident, and has been from the dawn of the American experience, that there is no distinct U.S. culture which of and by itself is a complete way of life. The U.S. culture is a unifying value scheme that permeates every one of its component cultures, but is nowhere near complete enough to stand alone as a complete world-view.

With the understanding of this fact has come a resurgence of religion, of mysticism, and of cults and sects new and old, throughout the U.S. This phenomenon has generally been taken as a backward swing of history's pendulum -- a return to more conservative or traditional values in an era of uncertainty and upheaval. This view misses the point, and is anyway a marked contradiction to the general abandonment of religious or cultural value-systems in the highly unstable period after World War I. In fact, the latter-day resurgence is the inevitable by-product of the intuitive understanding people have of the true meaning of cultural pluralism -- and the consequent need for a complete set of value concepts adequate to serve as a way of life, something the American set of value concepts is not. Once this has been realized at the deepest intuitive levels of human comprehension, there

must be an irresistible movement on the part of each person and group to identify or create the value-laden world view that will be his lifestyle. Such an irresistible movement, coupled with the freedom of thought that is uniquely American (see ahead), must bring about a flourishing of cultural heritages -- reborn, refashioned, or created -- greater than any ever seen before in human history.

The second feature of cultural pluralism that is becoming clear is that none of the embedded cultures, once they have become integrated into the U.S. culture, can claim a continuing congruence with the root cultures from which they have emerged; there is a necessary distancing (sometimes an alienation) between the Americanized version of an embedded culture, containing as it does the value scheme of U.S. culture, and the root culture which stands alone as an integral whole. Cultural pluralism, as developed in the U.S., entails the creation of an entirely new American culture consisting of an integral whole whose parts themselves are integral wholes, all sharing the value scheme of the unifying U.S. culture.

This fact accounts for the alienation felt everywhere by the American progeny of non-American cultures. The phenomenon is widely documented, and affects all cultural groups without exception. Such an alienation is not the mere product of physical separation nor of the passage of time. On the contrary, expatriate communities have often been in tune with their mother culture despite the intervention of vast oceans or spans of time. The American versions of non-American cultures have, however, something other than time and space dividing them from their roots: they have the infusion of new value-concepts which adds to, and

alters, the entire value complex of the culture in its New World manifestation.

One result of this strange twist of events is that cultural groups can live in harmony in the U.S. over long periods of time, with little violence and only sporadic outbursts of overt hostility, even as their root cultures engage in ongoing warfare elsewhere on the globe. The phenomenon has been widely noted and much remarked upon. One often hears people say that the fact that groups A and B can cooperate peacefully here in the U.S. shows that they needn't be at sword's edge elsewhere; but this observation is off the mark, as the U.S. version of these cultures incorporates U.S. value concepts and hence has components that the non-U.S. versions are lacking.

3 *The American Value System*

What then are the value concepts unifying U.S. culture, in addition to cultural pluralism? They have not yet all been analyzed[8], or even identified, and those that have are too numerous to be listed here in full. I shall concentrate on what I perceive to be the most obvious, pervasive, and important ones, and I shall limit myself to naming them and briefly discussing their significance. It cannot be repeated too often that value concepts are not subject to rigorous definition in the logical sense of the term, in the manner prescribed by Greek philosophy and its offshoots, but rather are concepts embodying a vast array of shaded meanings, all of which become focussed only in concrete actions and linked to each other through a flexible organic framework that constitutes the culture's essential meaning. Let us turn, then, to some of the concepts that inform U.S. culture today (listed in

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[8] An early attempt to do so, at least partially, in the context of education today can be found in *The Crisis in American Education: An Analysis and a Proposal* (Framingham: Sudbury Valley School Press, 1970).

no particular order, as they are inherently not subject to hierarchical patterning).

Group 1. *Socio-political democracy.* This concept informs all our political institutions at every level, all our community groups and organizations, and (perhaps less obviously) all social organizations. It is embodied not only in the bare acts of decision making by vote, but in every aspect of reaching decisions and carrying out decisions once they have been made. This value concept is closely intertwined with many others, such as: *personal rights* (which in turn is linked with a tight-knit sub-group of concepts such as *freedom of speech, freedom of dissent, privacy, due process of law* and many others, several of which were pinpointed two hundred years ago in the Bill of Rights, others that came to be understood through the actions of countless pioneering individuals, writers, philosophers, and judges); *individual respect*; and *equal opportunity* (and all of the non-discrimination concepts associated with this concept such as *social equality, sexual equality, religious equality,* etc.)

Group 2. *Proprietorship,* which recognizes each individual's claim to enjoy the fruits of his or her own labor. The most important aspect of this is recognition of the relationship between a person and what he has created through his own personal efforts. The precise form of the recognition varies with circumstances and with the historic period. When mercantile values dominate the economic scene, exclusive ownership is the form of recognition, and all other persons who seek access to the fruits of an individual's labors must obtain permission in some manner (e.g., by asking, by

entering into a contract, by paying). But this is not the only way recognition can be accorded. For example, long before copyright laws were developed, there were cultures that insisted that a person must always be cited by name for the opinions he has put forward; other cultures allowed individual wisdom to become part of the collective group wisdom without acknowledgement of origin. In general, the American stress on the importance, even sanctity, of the individual within any social group demands some form of proprietorship; the particular form is not an issue, nor is exclusive ownership an essential requirement. The latter point is the reason so many social groups have existed in America over the years based on ideals of community ownership of economic assets. Communes have long been a feature of the American landscape and they are as American as monopolies or mega-corporations or small businesses.

Group 3. *Innovation*, which is (like cultural pluralism) absolutely unique to U.S. culture. At the very heart of the American experience is the act of breaking with tradition. Indeed, that is the primary significance of the year 1492, a year laden with meaning for Western culture. The very idea of a New World embodied a departure from the Old. For hundreds of years, waves of immigrants uprooted themselves from age-old traditions in their homelands for the very purpose of tearing at the fabric of their accustomed ways of life. When, after several centuries of immigration, new settlers arrived on shores that were finally well established and heavily populated, it was inevitable that they would push on to new uncharted lands; "Manifest Destiny" was part and parcel of the need each settler

felt for a new beginning. Up to the end of the nineteenth century, many other startling forms of human innovation were created in the U.S., in addition to new settlement of new lands: new types of government, new concepts of community, new ideas of education, new technology, new forms of expression. But mainly, innovation was embodied in seeking uncharted physical territories, until these were largely exhausted.

From the time the physical frontier lapsed into insignificance -- from, say, the beginning of the 20th century --the all-powerful cultural drive to innovate channeled itself into creating new constructs of the human mind. Nothing has been more alien to American culture than unchallenged tradition, in any domain. As the century has progressed, the extent to which *innovation* has permeated American culture has become even clearer. This value concept has become closely associated with many others, such as: *creativity*, a value no other culture calls upon as persistently as ours; *freedom of thought*, a concept not to be confused with political freedoms listed earlier, all of which relate to actions that take part in a socio-political framework, whereas freedom of thought is a value concretized in the internal intellectual development of each individual; and *mobility*, the freedom to uproot oneself from a physical surrounding, from an economic level, from a social or cultural group, from an intellectual frame of reference, from an acquired world view.

The importance, centrality and pervasiveness of *innovation* as a key American value concept has been

little appreciated[9], though much lip service has been paid to the creativity of American genius. The kinds of breakthroughs that have occurred elsewhere throughout history over large spans of time, and almost always to the accompaniment of vigorous opposition, repression, and upheaval, occur in the U.S. regularly in huge numbers with great rapidity and with an openness to review, use, and acceptance that is stunning to outside observers. The fact is, that the rest of the world has not yet really caught on to the meaning or significance of this powerful value concept of ours, and there is a real danger that America in the 21st century will innovate its way into new domains of human experience utterly puzzling to other people. Attempts of others to copy what they like in the U.S. will become even more frustrating to them as the pace of change and variation will quicken far beyond the pace at which others can keep up. All this is taking place now, in a manner and with a significance that observers are missing, since what is seen on the surface is the social

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[9] An exception is Richard Foster's *Innovation* (New York: Summit, 1986), which is a paean to innovation in American industry. Foster considers it a sin to establish stable patterns and quotes approvingly Henry Ford's words, "when a man begins to think that he has at last found his method, he had better begin a most searching examination of himself to see whether some part of his brain has not gone to sleep." (p. 22). Foster "recognizes that innovation is born from individual greatness but contends that it lives in the province of the marketplace -- that it is a repeatable economic event" (p. 22). For Foster, innovation in America is, or should be, a commonplace. And it is the key to economic success, on the most practical level; for example, knowledge of an industry's innovative practices enables people to be "better predictors of what companies' stocks will do well." (p. 261).

and economic upheaval that seems to be endemic to the world during this generation. The underlying cause, the 90% lying beneath the surface, is America's rapid change into uncharted areas, which is in principle not reducible to predictable patterns or foreseeable outcomes.

The value groups of cultural pluralism, sociopolitical democracy, proprietorship, and innovation are separable only as words; but as concepts that inform U.S. culture, they are so thoroughly united that they are as one. It is inconceivable that any one of these groups would be removed or significantly modified within the ongoing American experience. They have been with us for several centuries, and their demise would, in fact, spell the demise of U.S. culture as a distinctive entity.

4 *Learning*

We are now in a position to look at education in the context of a culture. As Aristotle stated so eloquently over two thousand years ago, human beings are naturally curious. Their desire to learn is manifested essentially throughout their lifetime, from birth until death or debilitation claims them. The entire process of learning is labeled "education," and embraces several identifiable activities that, while not sharply distinct from one another, are nevertheless sufficiently different in nature to warrant separate analysis.

The most obvious, pervasive, and persistent form of learning is that which emanates from within each individual and is driven by that individual's self-motivated curiosity. Toddlers are notorious for exhibiting this type of learning activity relentlessly; it is also particularly obvious in hobbyists, explorers, scholars, and creative people. Everyone does it, however, during virtually all their waking hours, though not always noticeably to others.

Self-motivated learning takes many forms, each of which plays its own role in the development of each person's mind. One form is data-collection through

exploration, which is an active interaction between the person and the environment (including books and media). Another form is *experience*, which consists of storing events that occur to a person either passively or with the person's participation, for use later in comparable situations. Another form is *mimicking*, in which a person learns to perform a complex of actions by observing others and seeking to repeat similar actions by aping them as closely as possible. The person being mimicked is a role-model *pro-tem* within the limited confines of actions being copied.

Learning also takes place through *instruction*, wherein a teacher imparts to the learner the material to be learned. The starting point for instruction is the learning that the teacher has already accomplished on his own, in one way or another, and integrated into a system that can be transmitted by the teacher through words, through performance, and through a combination of the two. Since the teacher's mind is the initiator of instruction, the success of this form of learning is of necessity spotty; it depends critically on the ability of the learner's mind to grasp the teacher's presentation -- to enter into the teacher's mind, so to speak, for the subject matter at hand. The mind being enormously complex, the learner's ability to grasp faithfully what the teacher is trying to impart is always limited, and is increased in proportion to the effort the learner is making to accomplish this aim, an effort that in turn depends on the motivation and perseverance of the learner. Because of this, the most successful instruction takes place in an *apprenticeship* situation, where the learner (= apprentice) attaches himself to the *master* (= teacher) for an extended period of time,

under a mutual understanding that requires great application on the part of the apprentice and extensive instruction on the part of the master. Even here, as the ages-old history of apprenticeship shows, only a fraction of the apprentices ever become accomplished masters, and only rarely do they fully comprehend what they have been taught. Less intensive forms of instruction achieve much lower success rates, and generally lead to very little learning by the recipient; except indirectly, in a small percentage of cases, where the instruction may have aroused in the learner the desire to engage in self-motivated learning in the subject under discussion -- an occurrence that, as far as we presently know, is infrequent and random.

Perhaps the most important form of learning, however, takes place within the mind, in a manner wholly beyond our present understanding, quite without the stimuli of outside intervention or motivation. I am referring to the mind's learning to create meaningful structures for handling data -- sorting, categorizing, relating, and using later to inform action. The act of *using* a structure already created is called "problem-solving," and takes place spontaneously once the structure is challenged. But the act of *creating* structure is an ongoing mental activity throughout a person's life, and takes place at all times on a conscious and subconscious level. The overall mental construct of a person is called that person's *world-view*, so that it can be said that at all times the mind is working on creating, refining and modifying a person's world view. The activity of formulating a mental structure, whether partial (to deal with one or more domains of perception)

or total (to create an integrated, self-consistent overall mental structure) is called *model-building*.

It is a person's world-view that enables him, quite literally, to exist. With it, the myriad impressions made on him as he interacts with his surroundings and with his perceptions of his surrounding take form and meaning, coalesce into thoughts and ideas, and become integrated into mental and physical responses. In other words, the world-view is the essence of the person's character and soul in a functional living being. Without a world-view, the mind is splintered, unable to marshall the organism into continuous, coherent living.

Model-building is the primary form of learning that takes place in every healthy mind, and in such a mind, it will be practiced constantly, regardless of the wishes of the person himself or of others[10]. At most, one can try to affect the manner in which model-building occurs, or the substantive content of its structure. Such attempts to influence the direction of each person's model-building activity constitute the interface between the individual and the culture into which the individual is born; and thus we come to the interaction between the individual as model-builder and the

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[10] Indeed, mental illness, organically induced, often attacks a person's ability to construct models. Even a tiny interruption of the normal electrochemical processes of the brain can have shattering impact on this ability, which requires unhindered use of the brain's magnificent circuitry. An exceptionally sensitive understanding of this phenomenon can be found in the writings of Oliver Sacks, in particular in *Awakenings* (New York: Dutton, 1983); *A Leg to Stand On* (New York: Harper and Row, 1984); *The Man Who Mistook His Wife for a Hat* (New York: Harper and Row, 1985)

culture as bearer of a system of value-concepts -- the process of acculturation of the individual. And this leads us directly into the examination of the processes of maturation and assimilation.

5 *The Maturation of the World View*

Infants are born with a world-view, as they must be in order to function at all once they emerge from the womb; for all we know, the fetus has a world-view in the womb. The infant's world-view has been so far inaccessible to us due to our inability as adults to communicate with infants in a sufficiently comprehensive manner to understand their mental constructs. But we can be sure, from observing even their "simple" earliest behavior, that their minds organize their lives in a meaningful way.

This simple and almost obvious statement describes a state of affairs that untold numbers of sophisticated observers have missed. Thus, the myth of the infant's mind as a *tabula rasa* has been widely propagated, as has been the notion that all of an infant's actions are automatic, the result of reflexes and instincts preprogrammed into the brain. As academic observation of infant behavior becomes more sensitive, more and more learning abilities have been discovered in ever younger infants; but it is hard work to extend these boundaries, as the tools and methods of the investigations are based on preconceptions ill suited to the task.

It is important to understand with some clarity what takes place during the extended maturation period of a child. This is no small task, and it is often grossly misunderstood. Its difficulty is underscored by many factors: for example, the child has a world-view, as does the adult; the world-views of neither the child nor the adult are static, but both change, often suddenly and radically; the child and the adult are subject to countless inputs from their environment, and the number and nature of these inputs are not necessarily much different from each other; the child and the adult must, and do, manufacture the responses they need to deal with their surroundings, responses that are determined by a process of problem-solving within the framework of their respective world-views. It is not sufficient to speak of the greater complexity of the adult world-view, whatever this may mean, since a person's world-view of necessity always increases in complexity with age, as new material constantly presses for incorporation into the existing structure; where, then, is the dividing line between childhood and adulthood? The question appears to be even more obscure when we try to define what we mean by adulthood; it is only when we grapple with this problem that we come full circle, and realize that the very nature of the maturation process is culturally determined. It is the culture that determines, first and foremost, who is a child, who is an adult, and what is the nature of the transition from one to the other.

Indeed, the only aspects of this question that are trans-cultural are those that relate to the functional definition of the human species within the biological

evolutionary order[11]. The newborn infant at first engages in activities that identify it as a vocal mammal -- it cries out, it breathes, it suckles. The infant is endowed with human sensory apparatus, defined, but not fully operational; with human neuro-skeleto-muscular structure, available but neither fully formed nor controlled; and with a human brain, functioning at an unknown level. As the days and weeks pass, each of these physiological entities, separately and together, develop to reveal functioning *homo-sapiens*: the hands, the ability to speak, the walking erect, the peculiarly human balance of senses, the model-building and the problem-solving. In all cultures, the first few years of life are acknowledged to revolve around this biological transition to a recognizably formed member of the species. But side by side with the trans-cultural development that takes place, there is a culturally-defined process that begins often at birth and continues unabated.

To grasp this, it is convenient to separate cultures into broad categories, if only to limit the scope of the analysis and focus on the salient points that are most crucial to educational issues. For the purpose of this discussion, I shall divide all cultures into three groups: *pre-industrial*, *industrial*, and *post-industrial*. The

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[11] And it is quite difficult to study the details of the biological species-related developmental processes, because of the extreme difficulty in engaging in meaningful two-way communication with the subject, whether direct or indirect. One is hard-pressed to know what is actually going on with the subject of study. External observation usually replaces understanding based on communication, and such observation is always determined by the observer's world-view. The problem is the same in studies of animal behavior.

distinctions are based on fundamental aspects of the cultures' *style of living*, a term that encompasses key economic, technological and social features.

PART II

Cultural Styles of Living

6 *Defining the Pre-Industrial Culture*

A pre-industrial style of living has the following characteristics:

1. The technology of communications is limited to those transfers created and transmitted by the efforts of individuals, unaided by automated means. This means that messages are passed from one person to another individually and that permanent records are recorded, one by one, by individuals. The value scheme of the culture is thus transmitted in a slow, highly personal manner, as is the culture's accumulated wisdom.

The tenuousness of pre-industrial information storage and transmission is evidenced by a wide variety of historical experiences. Thus, for example, the famed Library of Alexandria served for close to a millennium as the chief repository for the written records of the ancient world bordering on the Mediterranean, or in contact with Mediterranean cultures. Of course, only a fraction of the existing written records was copied for the Library, but even so, as time passed, and war and poverty and death and dispersion and decay overtook

one after another of these cultures, the several million items stored in Alexandria became the only significant source for an understanding, however incomplete, of ancient Mediterranean cultures. When militant Moslem warriors swept through Egypt on their holy mission of eradicating "infidelity" and converting the world to Islam at the point of a sword, the Library was entirely destroyed -- and this single act, carried out at a single location, forever put out of our reach the wisdom and art of the ancient world as a coherent whole. For the last thirteen centuries, we have had to be content with peeking into odd corners of a handful of ancient cultures, as revealed in pitiful fragments unearthed here and there in archaeological expeditions, or copied and recopied by chance in some remote monastery or synagogue or school, each copy adding its full share of copyist's errors to its error-ridden source.

2. The technology of transportation depends primarily on animal power -- force exerted by humans or by domesticated animals. This limits the overall mobility of the population as to range, speed, and mass of baggage. The effective extent of the culturally impinging surroundings of any individual is therefore village-sized (whether the village be stationary or mobile as it is for hunter-gatherers).

A secondary source of transportation has always been travel over water, in some form of nautical conveyance. Although this rarely served as a serious alternative to land travel for large segments of the population, water transportation almost always played some part in the trade and cultural contacts between different cultures. Indeed, cultures that placed a large emphasis on mercantilism took pains to locate their

trade centers on waterways -- rivers, lakes or seas. A few pre-industrial cultures -- notably the Phoenicians, the Romans, the Norsemen, the Venetians, the South Sea Islanders, and the Iberians -- focussed a great amount of energy on water transport, and became adept at ocean-going trade spanning huge distances. But again, their preoccupation was generally viewed as idiosyncratic by other peoples, and when any of these was eclipsed by decay or military defeat, others did not adopt their technologies or style of life. In fact, between the decline of Rome and the rise of Venice, no great maritime culture existed in the Western world; and when the Phoenicians were defeated, no Middle Eastern maritime cultures ever appeared again.

3. The economy is, for the most part, focussed on providing -- primarily through the use of animal power -- the essentials of human existence: food, clothing, and shelter.

All urban cultures depended to a greater or lesser degree on specialization which inevitably produced some "leisure time" in the population -- allowing for the existence, at times, of scholars, philosophers, writers, dramatists, artists and the like, in small but conspicuous numbers in some communities. This phenomenon was commented upon by Aristotle, but was always marginal in pre-industrial cultures. That is not to say that human beings throughout history have been devoid of the desire to create artistic or intellectual constructs; quite the contrary, this human drive, as best as we can tell, has gone back to the dawn of man. Its expression, however, has always been severely limited in pre-industrial culture by the amount of energy required to take care of primary survival needs.

4. A high premium is placed on *experience*, which includes the amassing of isolated experiences over time and the accumulation of knowledge about other persons' experiences. Hence the universal respect accorded to *elders* in all pre-industrial cultures. The minds of the elders are the collective storage bins of each culture's accumulated knowledge, and the life-long experience of elders in problem-solving is the culture's well-spring for decision-making.

The limitations in physical horizons, in the size of the effectively interacting group, and in the variety of daily routines, all coalesce to create small, focussed, intense communities of highly intelligent humans who build up a cultural fount of wisdom enhanced by age. Traditions and lore maintained in the culture's collective consciousness, and added to by each generation, form a tapestry of life rich in local flavor, highly differentiated from one culture to another.

This steady accumulation, sorting, and refinement of age-old cultural wisdom is what lends every pre-industrial culture its profound depth, and its inherent harmony with its entire environment. The idea that pre-industrial cultures are "primitive," "child-like," "naive," etc. is not only without foundation, but also a deliberate attempt to justify cruelly destructive attacks upon the population and/or upon the contents of these cultures. Nor does it make any sense at all to speculate that this or that *contemporary* pre-industrial culture is a specimen of what our forebears were like twenty or thirty thousand years ago or more. Current members of pre-industrial cultures are as removed from their forebears as we are, both in time and in experience. Furthermore, even a superficial study of contemporary pre-industrial cultures demonstrates a wide range of

values, religions, models, technologies, art forms, musical expressions, and social customs that is greater in variety than the range of variation in these parameters among current industrial cultures. The notion of some sort of one-dimensional universal original primitive culture for man is pure fantasy, utterly unsupported by real world experience.

A child growing up in a pre-industrial culture is almost like a child growing up in an extended family. Gradually, almost imperceptibly, but with inexorable momentum fueled by internal drives, by external necessity, and by cultural expectations, the child is exposed to the culture's style of living. At a very early age, almost from the dawn of conscious awareness, the full range of the culture impinges on the child. As the years pass, the child participates in an ever growing variety of cultural activities, finally taking his place as an established member of the community in a manner determined by the culture.

In a pre-industrial culture, education is recognized by all to be a lifelong enterprise. No special institutions are created for the mass of younger people. Children are part of the community scene, and make up in energy what they lack in knowledge; elders are revered for their wisdom. To be sure, some pre-industrial communities arrange to have highly specialized centers of instruction for a small minority of select individuals, who carry on particular activities the community wishes to enhance: priests, for example, or artists. These are invariably formalized, highly structured islands of privilege open to few, and not a realistic option for the great majority of the population.

7 *Defining the Industrial Society*

By contrast, an industrial style of living has the following characteristics:

1. The technology of communications allows for the transfer of huge amounts of information to and from large numbers of people over great distances (globally), at a speed far exceeding that available to pre-industrial cultures. Thus, it is well known that the printing press was the first of the great technological innovations in information transfer and led to the widespread presence of the Bible in private homes in Europe -- a key factor in the Reformation, for example. The growth of scientific and technological publishing was a major factor in the burgeoning of modern science and technology in Western Europe. Mass literacy is a direct consequence of the development of industrial information processing.

In addition, the vastly increased supply of information generated by the availability of transfer mechanisms can be stored indefinitely, thus creating a huge pool of information accumulated over time. For example, the number of formally designated libraries

worldwide is truly staggering. There are over 30,000 public libraries in the U.S. alone, and scores of libraries with over 1,000,000 volumes. And the information stored outside of libraries far exceeds that stored within them.

2. The technology of transportation employs routinely non-animal sources of driving power that make possible extensive travel for large numbers of people. Members of a culture with an industrial life style enjoy great mobility, both for themselves and for the products of their ingenuity. Geographical limitations on physical contact disappear, and the whole world becomes a stage on which any individual life can be played out.

Both the speed and capacity of the transportation systems are impressive in industrial societies. As each new mode of transportation is developed, it quickly develops with respect to both of these parameters. Air travel in the past two generations is an excellent case in point, and one looks to rocket travel as the next phase in this development.

The nature of transportation creates the conditions for massive interaction between cultures, on a conceptual and personal level. The primary pre-industrial intercultural exchanges take place as a result of outright conquest, a phenomenon that was relatively rare; for that reason, pre-industrial cultures have been extremely stable and long-lived. Industrial cultures, on the other hand, interact with other cultures with great frequency, essentially at will, without the necessity for violence. Industrial cultures must therefore of necessity create mechanisms by which they can survive regular contact with other cultures. This necessity has far

reaching consequences, some of which I shall touch on below.

Unfortunately, this ease of cross-cultural interaction creates tragic outcomes to contacts between industrial cultures, which are geared to interacting, and pre-industrial cultures, which are not. A great number of pre-industrial cultures have vanished as a result of these contacts, overwhelmed by the onslaught of industrial value-systems and devoid of protective mechanisms to assure their own survival. This has been a tragedy for the human race, much as the eradication of untold species of plants and animals has been a tragic consequence of the contact between industrial societies and their biological environment.

3. The economy of industrial cultures is focussed on producing material goods in a manner greatly enhanced by mechanical means, by which term I refer to all methods of production that harness non-animal powers, i.e., machines. The use of machines enables an industrial culture to allot only a small fraction of its efforts to physical survival. This creates a great abundance of *leisure activity*, a term which I take to cover all activity not directly concerned with the rudiments of survival[12]. Leisure activity, thus de-

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[12] "Survival" must never be confused with that other elusive term, "the necessities of life." The former is biologically ordained, the latter depends entirely on a state of mind induced by the prevailing life-style. Industrial man has long been notorious for adding relentlessly to the list of goods he considers "necessities" -- a phenomenon that keeps the industrial machine going and fuels its growth and expansion in volume and variety of goods.

fined, can be and almost always is strenuous and difficult; the term, in my usage, in no way implies a state of physical idleness.

Human beings able to engage in leisure activity are free to give full expression to what has long been recognized to be the chief trait of the species -- *curiosity*, an activity of the mind directed at probing and testing as much as possible of the organism's internal and external environment. Industrial cultures thus all have in common the existence of a great variety of activities, whose number and nature depends on the depth of technological sophistication of the culture -- a sophistication that, in itself, is constantly enhanced by the leisure activity of the culture. As time goes on then, the range of activities always increases; sometimes steadily, sometimes by leaps and bounds, especially after technological "breakthroughs" in the type and use of machines.

One place to encounter head-on the variety of industrial activities is in the various listings of professions, put out by government agencies (such as the U.S. Dept. of Labor, or the Dept. of Education) or by career-counseling agencies. Another source for such lists is library classification systems (such as the LC system or the Dewey system). All these lists have shown explosive growth in the number of categories they contain, especially during the last thirty years. School curricula also reflect, to a lesser degree, the variety of activities currently engaged in by an industrial society. These curricula always expand with time.

4. In an industrial culture, a premium is placed on *energy*, displacing the centrality of the role of *experience* in pre-industrial cultures. Energy in all its forms

becomes the central preoccupation of industrial cultures; not only physical energy, but psychic energy, the latter enhanced and driven by a multitude of special techniques, stimuli and drugs. Peace and repose are the enemies of the industrial life style, and are stigmatized as laziness and sloth.

The culture's ability to handle massive quantities of information, to interact globally, and to extend itself in many new directions through leisure activity, all conspire to give a pre-eminent position to energetic individuals who can keep up with the culture's faster pace of living. "Life in the fast lane" is the motto of advanced industrial societies, and the style of the "jet set" sets the tone for the ultimate industrial role model. The heroes of industrial cultures tend to be entrepreneurs, inventors, dynamic leaders, explorers and such types.

The emphasis on energy drives industrial cultures to focus more on youthfulness, less on the wisdom of elders. Age becomes a handicap in an industrial society, rather than the asset it is in pre-industrial society. Industrial societies make a fetish of youthfulness, and tend to discard elderly citizens by removing them from the work force and isolating them from the mainstream of life. Youthful behavior, looks, and dress become the ideal for people of all ages, and as the ideal becomes less attainable to aging persons, they tend to lose their sense of worth in the society.

Industrial societies are characteristically more given to turmoil and unrest than pre-industrial societies; there is more opportunity for "mischief" generated through the availability of leisure. This condition is endemic to industrial societies, and leads industrial societies to alternate at breathtaking speed between

periods of cultural flourishing and periods of unspeakable upheaval.

The rejection of the stabilizing effect of age and wisdom enhances this sense of turmoil in industrial societies. Youthful energy, idealized for itself and untrammeled by experience, leads industrial societies into a wavering, uneven path of unsteady precariousness. This is their nature. The greatest heroes in all areas are those who attack a challenge with the most energy and spirit and the least restraint imposed by knowledge or learning or tradition.

8 *Stabilizing the Industrial Culture through Education*

The process of growing up in an industrial culture, and the related life-long process of education, takes on a radically different aspect than it does in a pre-industrial culture, due to the cultural characteristics outlined above.

The constant interaction between industrial cultures requires each culture to develop effective means for maintaining its integrity, something quite unnecessary in pre-industrial cultures that (before the advent of industrial cultures) could count on physical isolation to be a powerful ally in the battle for cultural survival. It is no longer sufficient to let the child wander about freely as he grows up, and thus absorb in a slow, natural manner the value scheme of the culture. Nor is it sufficient to count on the child's natural curiosity to figure out what is available to him as an adult, and what his ultimate role will be in the society. More options are available in the culture than can be grasped through casual, undirected maturation; and too many alien value systems are available to impinge themselves on impressionable youngsters -- and adults -- to allow for complacency in a culture that wishes its own value scheme to endure.

Moreover, the ubiquitous machines, which are the heartbeat of industrial cultures, require specific skills

from their operators, and from all those who participate in the mainstream of the industrial economy. These skills, determined as they are by the nature of the machines, can be defined at any given time in any given culture. An industrial culture that seeks to maintain its industrial life style therefore finds itself faced with the need to guarantee that the skills it needs are available in its members. These skills are required of great masses of people, who are needed as the cogs in the machine.

In a pre-industrial society, a variety of skills are also needed, but there is greater flexibility in the number of people who must at any time be experts at a specific task. There is time to weather the fluctuations of skill availability, as the culture winds its way through time. Industrial cultures operate at the edge of capacity at all times, and need to be assured a constant adequate supply of large numbers of trained workers.

Industrial cultures have therefore all developed methods whereby the survival of their value schemes and of their industrial life style is assured; first, in the period of growing up, and second, throughout adult life. As is happens, these methods have, in turn, assured the existence of a constant stress in the culture, caused by the inevitable clash of conflicting values and actions.

The primary industrial survival mechanism is *overt control* of the individual by the community. This control is explicit, and is enforced by the exercise of physical power over the individual. Indeed, one of the distinguishing features of industrial cultures is the universal perception of government as a source of coercive power, rather than a focal point of leadership. All industrial cultures exhibit intensely strong gover-

nance, ranging from monarchs claiming divine authority to democratically elected rulers backed up by armed police and armies. The need for a strong central power to impose law and order was, for example, the chief motivator for establishment of a Federal Government on this continent.

A pre-industrial culture could depend on the assimilation of its values in a natural unforced manner by its youth, and the consequent widespread voluntary acceptance of its value scheme by all its individual members; an industrial culture cannot afford to do so. The environment is full of hostile values, and the culture has many needs not readily apparent in the immediate environment of each individual.

Industrial cultures thus feel a need to control the access of children to alien values, and to direct the interests of children towards activities that are required by the current industrial economy. Each culture employs a varied arsenal of weapons to enforce this control:

1. The nuclear family is used as the primary agent for transmission of values in the early years. In an industrial culture, the nuclear family is the only grouping left that can form an effective stable environment for a child. Gone is the stable extended family, or clan, or village; these have been removed from the picture as meaningful social units in the transition from pre-industrial to industrial culture. Indeed, it is generally accepted that the breakdown of tribe, clan, village, or extended family was a necessary adjunct to the creation of an industrial society. It is argued that the depersonalization and urbanization required by the industrial machine is incompatible with extended

family ties. I am not convinced that this is either true or even prevalent.

The nuclear family becomes the militant enforcer of cultural values, and is explicitly charged with the task of indoctrinating its children -- along with virtually unlimited power to achieve its goal[13]. The kind of power, verging on "ownership," vested in parents over children is rare in pre-industrial cultures. Some of the undesirable consequences of this system are only now

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[13] The degree to which the family can be harnessed to control and program children, from the earliest age, is truly astounding. Thus, for example, many books have been written urging parents to take a more active role in directing their children's learning at an ever earlier age. Consider the advice given by David Melton, in his book *How to Help Your Preschooler Learn...More...Faster...and Better* (New York: McKay, 1976). On page 1 we read: "Has your five-year-old recently read a good novel? Does your four-year-old solve algebraic equations? Has your three-year-old painted a masterpiece? Is your two-year-old a student of geography? Can your one-year-old swim? If your child isn't doing these things or can't do these things it may not be your child's fault. He or she can probably do *all* of these things if you take only a few minutes out of your day to teach him or her how. The fact is, very young children have the ability to learn *anything* you care to teach them." [Italics in original] And again, in case there was any illusion of subtlety about all this, Melton writes (pl.198): "I strongly suggest that you print some cards and hang them on the walls where you will see them every day. In your child's room. In the kitchen. In the living room. Even in the bathroom. Print the following statements: MY CHILD CAN LEARN ANYTHING AND EVERYTHING I CARE TO TEACH HIM. MY CHILD HAS A GENIUS FOR LEARNING. MY CHILD CAN LEARN MORE TODAY THAN HE CAN NEXT YEAR..." etc.

coming to be recognized, under the vague and difficult rubric of "child abuse."[14]

2. Religion, or ideology (as the case may be), are greatly strengthened as preservers of cultural stability. Always the guardians of cultural values, they now are encouraged to affect a militancy that serves to strengthen their hold on their individual followers. In addition, they become the chief agents of proselytizing the culture's values throughout the world, fighting to avert cultural corruption by converting the entire world to the culture's own value scheme.

3. New values are created, or old ones greatly modified, to provide anchors, rallying-points, for cultural identification. Examples of such values are:

-- *sanctity of ownership:* Possession, by its nature, engenders protectiveness, envy and a need to join forces with others to guard everyone's property from outside encroachment. Any value that enhances the desire to form "a band of brothers," to distinguish insiders from outsiders, serves as a mechanism to protect and perpetuate a culture, albeit in a rather negative manner. Ownership, as applied to land, has the additional characteristic of binding the owner to the

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[14] Such concepts as "age of majority," for example, become highly significant in the industrial social order -- not to be confused with the age of maturity, generally at the onset of puberty, common in pre-industrial cultures. Maturity is related to acceptance of responsibility. "Majority," by contrast, is tied to the legal concept of a transition from no status as an independent person (almost chattel status) to status as a legal person to whom certain protections and rights apply.

land, and thus creating geographical bonds between the members of a culture and the area they occupy. This process feeds upon itself, leading eventually to exclusive regions, defended borders, militant protectionism, and exploitation of the land which must intensify as the population bound to the land grows in numbers and in demands. The argument that the human race is by nature territorial is purely speculative, and is not supported by the observed behavior of pre-industrial cultures throughout the world, few of which know the concept of private ownership of land.

-- *materialism:* The notion that the accumulation of material goods is a goal to be sought after is, on the one hand, a cornerstone of industrial society, feeding the industrial economy and allowing it virtually unlimited growth; and, on the other hand, a source of competitiveness among cultures, providing a focal point about which a cultural "team spirit" can develop.

-- *progress:* The novelty of the value concept "progress" is often poorly understood. For most cultures past and present, the notion of historical improvement with time is unknown; on the contrary, the prevailing notion is that of a balanced, if mysterious, cosmic order, with which man must harmonize. Progress, on the other hand, is directional and implies the triumph of human endeavor over the forces of nature and their perceived inertia. Insofar as progress is a guiding value concept for a culture, it creates the need for articulated cultural goals ("progress towards what?") and for joint action toward their achievement; and cultures become differentiated by their sets of goals, by their rate of progress, and by their ability to perform -- again engendering group spirit, competitive-

ness, and exclusiveness that contribute to cultural bonding in industrial societies.

-- *racial superiority:* Although not a value concept entirely unknown in pre-industrial cultures, this is largely the creation of industrial cultures, and seems to have an enormous emotional appeal that promotes intense internal bonding within a culture and intense xenophobia towards outsiders. Why this is so is not clear, although there is obviously something *elemental* about blood-lines. What is most puzzling is the ability of this value concept to capture the imagination of members of different cultural groups even if their racial composition is identical, or complex. Thus, English or German identification in the period 1750-1950 had major racial components, even though the dominant anthropologically-defined races of the English and Germans were identical, and both cultures included polyglot races. The *idea* is clearly more important than the reality, and the reality is often ignored or distorted to suit the idea. No better example for this exists than Nazi Germany, which took the concept of racial superiority to its farthest conclusion, and exalted it beyond anything else. Yet, the Nazi leadership itself failed to meet the anthropological criteria it established for German racial superiority.

These newly created or enhanced value concepts become foci for strengthening the identification of an individual with the culture into which he is born. Often, new values are created in a particular social subgroup of a culture (defined by geographic area, or language) that are aimed at preserving the essentials of the culture even while tearing it apart physically. The most glaring example of this is the value concept *nationalism*, which thoroughly ravaged the Western

World while serving as perhaps the single most important positive focus for the preservation of Western cultural value schemes.

Thus, in a very real sense, Western nationalism preserved the overall value scheme of the Western industrial culture even as it tore apart the fabric of Western society. The ultimate orgy of self-destruction that occupied the generation 1914-1945 in the Western world was the result of nationalism, and contributed much to the disillusionment of many people with the industrial life style -- and the yearning for pre-industrial cultures on the one hand, or the search for post-industrial culture on the other. Dean Acheson has quite properly called the two 20th century World Wars "European Civil Wars," and they indeed have the distinguishing features of civil wars. But even as this carnage was going on, the very cultures involved in it were exalting and preserving their cultural identities and industrial life-styles, using the wars as additional tools for cultural identification and survival.

4. Formal institutions -- schools -- are established to channel the education of children, as they grow up, in a manner demanded by the culture. These schools fulfill their cultural purpose as follows:

-- "They keep children off the streets" -- in other words, by physically incarcerating children during their formative years for most of the day, schools severely restrict the range of contact children have with alien ideas not permitted within the schools.

Incarceration serves other ancillary purposes, one of which is simply to protect children from the physical hazards imposed on the environment by industrial products (e.g., cars). Another well-known function of

schools is to keep children out of the industrial workforce, thus lessening competition for jobs; schools and enforced retirement have been important factors in sustaining the standard of living of dominant males in the 16-65 age range.

-- They expose children constantly to the culture's value scheme, primarily through the children's contact with *teachers*. Teachers are the culture's extension of the nuclear family, who are in contact with children over a considerable period of time. Teachers are the role models who replace the entire adult community that is available to children in a pre-industrial society. In effect, where a pre-industrial society inculcated its values chiefly through the free natural interchange between children and adults in the community, an industrial society replaces this process by the forced long-term interaction between teachers and children in the physical confines of the school.

It is essential, in understanding the nature of schools in an industrial culture, to realize the key positions teachers fill as role-models. The most important virtue a teacher must possess is loyalty to the culture's value system. Everything else is secondary. This is the foundation of all teacher-training and teacher selection in every industrial society.

Cries for changes in teacher-training or teacher qualification carefully skirt this point; in fact, the essential nature of teacher training has changed little over time, nor has the nature of teaching as a profession. This is the way industrial cultures want it to be. Thus, the teacher as master of a field of knowledge is *not* what the schools want at all, since masters tend to be independent, have their own approaches and ideas,

and may even lead to change. It is important, by contrast, that teachers have only a casual acquaintance with any field, so that they can at best grasp and transmit the currently accepted version of the subject matter and not challenge or embellish it. Similarly, the social status of teachers is carefully kept in the middle of the spectrum -- high enough to command some respect, especially among the masses of industrial workers, but not high enough to attract truly creative or dynamic or imaginative people to the profession, at least not as a matter of routine.

-- They channel children's energy toward the acquirement of the skills needed in the current industrial economy.[15] Each culture develops its own methods for assessing its detailed manpower needs, and for subjecting these assessments to periodic re-evaluation. Thus in the United States there has been a never-ending stream of curriculum re-assessments, more frantic in recent years as the country slips out of the industrial life style while the educational establishment strains to treat it as still an industrial culture.

Once the assessment is made, the school curriculum is created to reflect those needs, and the flow of chil-

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[15] The basic purpose of a curriculum in an industrial culture is stated succinctly by Siegfried Engelmann, himself a Professor of Education. "Children can be taught if we employ the technology needed to teach them. Similarly, children can be motivated if we stop leaving the motivation to chance and engineer the behavioral changes we desire in kids. The underpinning of this theme is that we have a strong moral and economic commitment to our children, and this commitment must be manifested with more than love. It must be translated into successful action." *Your Child Can Succeed* (New York: Simon & Schuster, 1985), pp. 7-8.

dren into the various skill groups is regulated by overseers chosen by the culture for this purpose. The chief overseers in this country are the various groups and agencies, both governmental and private, that parcel out funds for the support of teacher-training, student scholarships, materials, and promotion in the particular fields chosen for attention. Although this has always been the case, the transparency of the intervention in the U.S. has only been evident since the Sputnik era, when all pretensions to subtlety were dropped, despite the evident contradiction between freedom of choice and career-oriented manipulation by the authorities.

One important tool in the process of overseeing the flow of students into particular disciplines has been forced exposure of youngsters to a chosen spectrum of disciplines, and a subsequent weeding-out process, done through a variety of tests and evaluations[16], to

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[16] The paramount role played by Educational Testing Service of Princeton, N.J. as a major national arbiter of abilities and skills, as determined by standardized tests, cannot be exaggerated. ETS has successfully built itself into a major enterprise, spanning wide ranges of professions. Despite many attempts to attack the practices of ETS, and the underlying theories that proclaim testing to be an effective mechanism for determining life decisions in an industrial and/or post industrial culture, the influence of national tests seems to be on the rise at present -- a sure sign of an ever more desperate and insecure population seeking familiar landmarks in a quagmire of uncertainty. As David Owen puts it, in his thoroughly researched analysis of ETS entitled *None of the Above* (Boston: Houghton Mifflin, 1985), "ETS plays on the insecurities it cultivates. It maintains power by manipulating anxieties" (p. XXI); and again, "Our insecurity about tests gives them a

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help the overseers make choices in the channeling process. As the selection process becomes more complex in an ever-more-complex industrial setting, the tests become more frequent, more comprehensive and more controlling: the greater fine-tuning required in a complex economy invites more intervention and control. As we shall see, this whole process becomes irrelevant in a post-industrial economy.

As an industrial culture grows older and becomes more intricate, the curriculum and the control mechanisms also gain in intricacy. There is an inexorable drive, as time passes, to add more subjects to the list being offered in schools, as the industrial technology branches out to encompass a wider range of control over the physical environment.

Even critics of the industrial educational system concede that it does its job well, albeit at an exorbitant human price. As Jonathan Kozol has put it[17]: "U.S. education is by no means an inept, disordered misconstruction. It is an ice-cold and superb machine. It does the job: not mine, not yours, perhaps, but that for which it was originally conceived...The first goal and primary function of the U.S. public school is not to educate good people, but *good citizens* ... In the double talk of Schools of Education, we employ ... elegant expressions like 'the socializing function.' The function

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[16](...continued)
mastery over us. Are we saved or damned? We defer to the tests because we think they see what we cannot" (p. XIV).

[17] Jonathan Kozol, *The Night is Dark and I am Far From Home* (Boston: Houghton Mifflin, 1975) p. 1.

is ... : twelve years of mandatory self-dehumanization, self debilitation, blood loss." [Italics added]

5. The essential nature of the learning process is strongly interfered with in industrial cultures. The dominant form of learning, encouraged through rewards and punishments, is instruction in skills. Learning through exploration, and through other self-motivated activities, is severely curtailed in a variety of ways. The very act of incarceration of children in schools severely limits their access to their surroundings. In addition, forays into physical or intellectual territories not approved by the official curriculum are severely repressed through disapproval, rejection, penalties, and frequently social ostracism (enforced isolation; commitment to mental institutions, imprisonment).

In the industrial educational system the right subject must be mastered in the right way at the right time. Thus children are not supposed to be taught a particular field "too early" (especially not by someone like a parent, outside the approved educational system) or "too late" (which makes them slow learners, retarded in their acceptable rate of progress). The books for instruction are carefully selected and monitored; authorities choose them and publishers adhere to the approved formulas at the risk of losing their money on an unmarketable text. School libraries are carefully screened and little used except on approved projects. The entire field of developmental psychology and educational psychology is constructed, using industrial-style scientification, to encourage the notion that mechanized, uniform treatment of children in the schools is justifiable and based on proper scientific

evidence. In an industrial culture, Piagets are a necessity, no less than engineers and financiers. There is little point in entering into a debate with these industrial-age theoreticians, as their existence is needed to justify the measures taken by an industrial culture to perpetuate its lifestyle.

The use of confinement to psychiatric institutions, or ostracism through psychiatric treatment and labelling, as weapons to keep citizens in line politically in an authoritarian governmental system has long been recognized, and has been developed into a fine art by sophisticated regimes -- together with methods that attempt to make the victim accept the appropriateness of the regime's violation of his intellectual and physical independence. What is less generally recognized is the extent to which *all* industrial cultures use these weapons to keep their entire population, including children, restricted to well-defined, acceptable modes of public behavior. In sharp contrast to pre-industrial cultures, which find ways to integrate into their fabric persons exhibiting any and every mode of behavior (including those we would label as severely psychotic), industrial cultures, if they are to maintain the regimentation required in an industrial economy, must suppress behavior that lies outside the range prescribed norms. Mavericks everywhere are cast out of the flow of life, and this process begins -- as one would expect -- in childhood, in the schools, the better to impress the growing individual with the need to adhere to proper behavior patterns throughout adult life. The "better" the industrial school system, the more intensely does it monitor "aberrant" behavior, through psychologists, specialists, and wholly or partially segregated facilities, manned lavishly and supported extravagantly by

public funds. Difficulties children have in dealing with the official curriculum often come to be labeled as mental or behavioral disorders, subject to professional "treatment."[18]

Additionally, it turns out that the very structure of industrial cultures severely impedes unhampered self-motivated activity in a number of ways. For example, transportation and communication, while spectacularly more efficient than in pre-industrial societies, still do not allow rapid effortless contact between an individual (especially a child) and a significant fraction of the vastly enlarged surroundings that affect him. Additionally, industrial cultures are filled with hazardous machinery that has not yet been integrated into the natural life flow of living beings; children are surrounded by unsafe environments that seriously limit their freedom of movement. Hazards remain unattended even when the culture is fully able to remove them. We are talking here about a matter of *will*, not of external limitations. Planners and designers have long known ways to make the industrial environment much safer for free-roaming individuals; industrial cultures, however, do not wish to implement such measures, with few exceptions (which themselves must, in each

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[18] Thus, for example, we find the following category defined, for practical use by mental health professionals: "children...of average intellectual ability [with] no serious physical or emotional problems. Yet they experience failure in the first few grades of school ... For these children, failure is not attributable to some malfunction of the brain. It *is* attributed to a mismatch between the child and the curriculum. Accordingly, I propose to call such children *curriculum disabled*." David Elkind, *The Child and Society* (New York: Oxford, 1979) pp. 223-224. [Italics in original]

instance, be carefully justified!) because the hazardous environment serves a useful purpose in limiting mobility, especially for the curious young. Where a pre-industrial society might invoke hostile environmental factors, such as evil spirits, or marauding animals, or hostile neighbors, to limit mobility, industrial cultures invoke technological hazards which are purposely allowed to remain.

Learning through model-building is also severely restricted in industrial cultures. Each culture, to protect its integrity in the face of the onslaught of competing cultures, strives mightily to narrow the diversity of world-views permitted to its citizenry. In an industrial culture, to be sure, every individual, in order to be able to function, must have his own unique world view, his own individual ability to construct models; but the variance permissible in these individual constructs is limited, to prevent the individual from acting in a manner that conflicts seriously with the culture's value scheme[19].

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[19] The pressure to conform to accepted models is accompanied by a severe suppression of individuality, of the self as an object of worth. As Jonathan Kozol has put it, in the context of the educational world: "Thoreau, on the first page of *Walden*, set down these words: 'In most books, the "I," a first person, is omitted; in this it will be retained; that, in respect to egotism, is the main difference.' Twelve years in public schools renders such words, such insolence, such recognition of the role of self, almost beyond the limits of conceivable repression." (*loc. cit.*, p. 74). And a bit ahead (p. 75): "In the University we hear much the same [avoidance], though in a different set of words: 'One might as well ask if this could be described ... It seems at least within the bounds of reason to propose ... One might suggest ... It could, I think, be argued by some people ... ' I

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The only way to restrict an activity as basic to the human mind as model-building is to apply enormous psychological and social pressure to each individual, to force them to comply as closely as possible to cultural norms. In this ongoing, repressive action, every available tool is used, but none more effectively than the sophisticated communication mechanisms available to an industrial culture. Every medium is used relentlessly to depict the prevailing norm, and to admonish against deviation from it. Normal models are everywhere displayed and encouraged, and abnormality becomes a trait more disadvantageous to an individual's existence than any other.

Industrial cultures need mass psychology, peer pressure, faddism, and social normalization for their very survival. The question is never "Why do people behave like sheep, like followers, in an advanced industrial culture?" There is no question, because the need for such behavior is at the heart of industrial society's ability to survive. If anything, the question is -- "How do innovators ever survive in an industrial culture?" -- and the answer is, it is a statistical quirk, an oddity that crept in through the cracks, since the overwhelming majority of innovators, even those that

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[19](...continued)
hear this kind of conversation frequently among my friends and former teachers, above all in sophisticated circles around Harvard. It is as if these elegant and prestigious men are scared that they may have engaged unwittingly in an illicit sexual offense by having arrived at the unlooked-for consummation of *a real idea*. It is as if they fear their progeny will not be licensed, or legitimized ... " [Italics in original]

ultimately become heroes after their time, *don't* survive!

Adult conformist behavior is achieved through relentless training of children from the earliest age to adjust to narrow limits of acceptable behavior. Thus, for example, even such a seemingly harmless domain as attire becomes normalized. At first, industrial cultures imposed severe dress codes on children (and the adults who grew up from these children wore the standard output of the industrial clothing sector). More sophisticated industrial cultures encouraged conformist behavior through media and subtle psycho-social manipulation, which allowed an illusion of freedom to be perpetuated through a carefully monitored and limited set of allowable "cool" faddist dress. Thus the phenomenon of "rebel" youth all wearing the same clothes, more strictly alike than any formal dress code, is not the anomaly so many casual observers seem to think it to be. On the contrary, it is a component of overall regimentation of youth in the culture, done at a level of subtlety hitherto unknown. Nowadays, even authoritarian political regimes have understood this aspect of manipulatory conformity through illusory freedom. The example of dress applies in almost every aspect of children's lives; everywhere, conformity to peer norms is encouraged through enormous pressures from all quarters (most of them controlled by adults, as are, for example, all the mass media), and strong social disapproval -- often violence that is either condoned or

unpunished -- is directed at the few individuals who seek to take a truly independent path[20].

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[20] Compare, for example, the following perceptive analysis: "In many societies, the only method of control is frank repression. In this society ... physical threat ... [is] used ... only as a last resort. In general, methods of direct repression are not necessary. In most cases, what we do instead is not to suppress but to divert the revolutionary instincts of our children. We do it by the use of words and the co-option of catch phrases. We do it by the designation of a sanctioned counterculture ... At best these substitutes create a broader spectrum of potential channels for arriving at some familiar harbors." Jonathan Kozol, *loc. cit.*, pp. 180-181.

9 *Tensions Inherent in an Industrial Culture*

Embedded in the heart of the industrial life style is a maze of contradictions that guarantee perpetual tensions within the culture. The most disruptive of these tensions stem from the basic struggle of each culture to survive in an industrial milieu. Survival in the face of constant assault by alien cultures -- an assault brought about by the mere fact of physical and sensory proximity -- requires vigorous defensive measures, which take the form of inter-cultural competition. The more the culture has entered into the industrial life style, the more strident must its competitive activity be in the face of the ever more pervasive infiltration of outside influences. And since the best defense is often seen to be offense, a culture's struggle for survival often leads it to struggle for dominance over other cultures, using every means available to it.

It should therefore come as no surprise that an industrial world creates an environment of perpetual warfare in the intellectual, psychological, economic and military domains -- in other words, in every area available for a contest. The industrial life style quite literally forces cultures into a war footing, a never-ending state of alert. Furthermore, while some observ-

ers have wondered at the seeming paradox that the most "advanced" century in history, the 20th century, has witnessed the most horrible human carnage in history, we should not marvel at this, but rather take it for what it is: the unavoidable outcome of a situation in which several industrial cultures seek to maintain themselves without giving up their industrial life styles. Nor should we be surprised by the corollary to this observation, namely, that the more sophisticated a culture's industrial capabilities are, the more powerful will be the weapons it brings to bear in its struggle for survival through dominance -- and the more effective its means of achieving its goal, through the unfettered use of all industrial tools at hand. Ironically, at the time of the Second World War, Nazi Germany did, in fact, represent the ultimate realization of industrial goals, as it often claimed.

Even as industrial cultures bear with them the seeds of perpetual inter-cultural conflict, so too they carry the seeds of unending intra-cultural warfare, caused by the tensions created by the control mechanisms industrial cultures must employ to bend human nature to the needs of the industrial machines. Man, by nature a free agent, by nature a roving explorer, by nature a self-mover, by nature a free-wheeling model builder, resists at every available level the efforts of an industrial culture to restrict his activities to the range permitted by the culture. This built-in conflict between human nature and the nature of the industrial life style produces a wide range of disruptive psycho-social phenomena that are universal in all industrial cultures, and threaten always to tear them apart from within.

A perpetual state of internal tension, always threatening to break out into chaos and anomie, is a uniquely

industrial phenomenon, and burst upon the world's consciousness with the outbreak of the French Revolution. It is immortalized in Marxist theory which, however, misses the point that there is no final escape from it, e.g. through a "classless" society. This industrial intra-culture turmoil bears no resemblance to the occasional upheavals in pre-industrial societies, which are extremely rare historically, and can usually be traced to specific causes. The primary cause of inner turmoil in industrial society is the lifestyle itself.

There are many different manifestations of intra-cultural disruption in an industrial society. Examples include:

-- tension and resistance to learning within the schools. As Gilbert Highet put it, "Why is teaching often so difficult for teachers? And why is learning nearly always so hard for the pupils? There are many reasons; but one certainty is that, as most schools are set up today in the Western world, learning is something compulsory. It is an Ought: even worse, a Must. And in the lands of freedom the young now sneer at the Oughts and evade or resist the Musts with all their energy[21]."

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[21] Gilbert Highet, *The Immortal Profession* (New York: Weybright and Talley, 1976) p. 1. [Italics in original] Highet recounts an amusing episode, illustrating the life-long repulsion to school-taught subjects engendered by forced imposition: "A good friend of mine, when I brought out my last book, asked me how many I had written altogether. When I said: 'Fourteen, I think, not counting the little juvenalia,' she laughed, and answered: 'I don't think my Doug has *read* fourteen books since he left school. They shoved *Ivanhoe* and *Silas Marner* down his throat so hard that he still gags when he looks at a bound

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-- social turmoil and rebellion;

-- confrontations between various loosely constituted groups, formed and re-formed around ever-changing foci (such as religion, social class, economic class, nationality, race, educational level, etc.) which command no long-term commitment from the individual adherents, but merely serve as ad-hoc centers for discontent;

-- economic cycles of euphoria and depression, "boom and bust." Economic cycles are phenomena of mass psychology within an unstable industrial society, and occur universally, regardless of the nature of the society's "economic system." (This simple fact, readily observable from the history of the past three centuries, seems to be overlooked by most economists, who seek financial explanations for psycho-social economic phenomena.);

-- individual personal cycles of euphoria and depression, caused by the inability of most individuals to realize their internally-determined potentials in an industrial society. The result is a widespread loss of hope, a sense of meaningless in the world and lack of purpose to life. These feelings are rare in pre-industrial societies, as are the attendant psychological afflictions of depression and personality disorientation;

-- escape through mind-altering drugs, self-destructive behavior and suicide.

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[21](...continued)
volume full of print. He never reads anything but the *Wall Street Journal* and *Sports Illustrated*.' Yet her Doug is a capable fellow with a lively and versatile mind. It was early compulsion which 'froze the genial current of his soul.'" (*Loc. cit.*, pp. 2-3)

These are the hallmarks of the industrial life style, as typical as the socio-technological characteristics that define industrialism.

Unfortunately, the great disruptive power of an industrial culture's internal tensions serves only to create ever greater chaos. The first reaction to the emergence of unwanted divergence from norms is the application of more control, which in turn intensifies the tension[22]. Hence the oft-remarked alternation in industrial cultures between increased freedom and diversity on the one hand, and repressive "clamping down" on the other -- a pendulum swing that goes on generation after generation, as regularly as a law of nature. Even more ominous is the method often used to renew the loyalty of an individual to a culture threatened by internal dissolution, to wit, invoking the need to unite for elemental physical survival in the face of an onslaught by alleged "external enemies." A state of war is thus often seen as a culture's only chance to maintain its coherence. Intra-cultural tensions thus

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[22] Educators generally avoid discussing the tremendous conflict between human freedom, as aspired to in free societies, and the repressive nature of the schools; the conflict is embarrassing, and it is difficult to justify. Compare the tortured reasoning of Paul Copperman, *The Literacy Hoax* (New York: William Morrow & Co, 1978), p. 180: "We damage authority relations in education at our own risk. Subjected to an educational system sapped of its authority, our children will not develop the skills and knowledge necessary to function autonomously in modern society. Because democracy presupposes a degree of autonomy in its citizens, the stripping of authority from an educational system jeopardizes our democratic way of life. *Paradoxically, our most potent protector against authoritarianism is authority.*" [Italics added] In other words, we must be enslaved in order to be free.

feed inter-cultural conflicts and strengthen them yet further.[23]

Every gain in the perfection of the industrial life style thus produces, in addition to the benefits it creates, a host of problematic tensions. Small wonder that many sensitive individuals born into an industrial milieu yearn for its abandonment, and many pre-industrial cultures, faced with absorption into the now dominating industrial life style, seek to avoid its embrace. Indeed, the extent to which pre-industrial cultures try to protect themselves from the "benefits" of industrialization is seldom appreciated. Thus, for example, in the 1950's and 1960's industrial cultures expected the huge number of pre-industrial cultures in the world -- some of which were granted independent national status by the dominant industrial cultures -- to rush headlong into industrial "development," thus affording the existing industrial cultures limitless opportunities for manipulation and for the development of new markets. By the end of the 20th century, it has become evident that a great number of pre-industrial cultures, if not the majority, are not really interested in adopting an industrial lifestyle, although they are

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[23] Perhaps the most striking example of this is Stalin's use of the Second World War to provide, after twenty years of bitter internal dissension and repression, a sense of Russian solidarity and cultural pride transcending the revulsion at internal horrors.

busily developing strategies for interfacing with industrial cultures.[24]

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[24] Some of the most eloquent testimonials to the determination of pre-industrial cultures to maintain their identities in the modern world can be found in Thomas R. Berger's striking volume, *Village Journey* (New York: Hill and Wang, 1985). Berger writes (p. 176): "Most Native peoples have no wish to assimilate. They have refused to be proletarianized. Their fierce desire to retain their own culture can only intensify as industry, technology, and communications forge a more deeply pervasive mass culture, excluding diversity of every kind. Native peoples the world over fear that, without political autonomy and their own land-based economy, they must be overwhelmed, facing a future that would have no place for the values they have always cherished. Native peoples everywhere insist that their own culture is still the vital force in their lives; the one fixed point in a changing world is their identity as Natives."

Berger's book contains, in addition to his summaries, analyses, and recommendations, a large number of direct citations of statements made to him by Natives in the course of his travels, mostly in Alaska. Many of these quotes are eloquent, poetic. Consider, for example, the statement of Axel Johnson, a resident of Emmonak (p.51): "We, the Native people, the Eskimos, we are very proud of one thing, that is our culture and our Native way of life, to live off the land, because we know culture and our tradition and way of life cannot be bought, cannot be taken away from us, no matter what happens. We live through this life, thick and thin, but that is one thing that we have, and that is, our way of life through our culture, our tradition, and the ... words that were given to us by our forefathers and elders. Our times and what we have learned will not be taken away from us. We will hold it and try to pass it on as our elders have." Eleanor McMullen, of Port Graham, had this to say (p. 52): "I don't know how anybody ... who can place the value on my Nativeness, who can place the value on my thinking, my spirituality, I don't think anybody can. Only myself, and I think each and every one of us need to

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[24](...continued)
remember that we are Native and that we need to value that and protect it ... through protection of our lands and our life-style."

It is quite clear that there is nothing "primitive" or "backward" about this yearning to preserve a pre-industrial culture. Thus Edgar Ningeulook of Shishmaref could state, without any internal contradiction (p. 155): "We are the only ones who can save ourselves. We keep looking to the outside world for someone to come and do it, and it is not going to happen. we are expecting someone out there to save us and, in fact, there is nothing in the outside world that is really that important. ... I think our people ought to understand that it is possible to maintain their identity and their spirit and their language and their traditions and their history and their values and still function in the twenty-first century. We know what we need to know, how to make decisions, how to analyze situations, how to speak many languages and understand technology."

10 *The Post-industrial Life Style*

It is not yet possible to delineate clearly the chief characteristics of a post-industrial life style. None exists at present to be observed. The best we can do is grasp through our powers of insight the elements around us that seem to diverge from the industrial life style in the direction of a post-industrial society, and guess at their extension into more complex manifestations. This is, of course, an exercise in "futurology," one of the favorite games of social theorists, economists, technologists, science fiction writers, and philosophers. Interestingly, although many futurologists are extremely clever at predicting specific developments in certain areas, for the most part they focus on the future of industrial societies, and only rarely do they catch a glimpse of a completely different post-industrial lifestyle congenial to utterly new cultural value schemes and forms of social organization and/or cultural interaction. With this caveat in mind, I shall delineate the main characteristics as I see them.

1. The technology of communications creates, in effect, a *global mind* in which each individual can participate. By a global mind I mean a universal

repository in which all events are recorded as they occur; everything that has been recorded is stored in an appropriate fashion in a global memory; and everything stored is accessible in whatever form the accessor wishes to have. The present and the past, on a cosmic scale, are all integrated into a great reservoir of experience and history freely available to every person. Thus the Jungian concept of a collective consciousness within each individual, presently a hotly debated and little accepted hypothesis, becomes a reality on a scale not imagined by Jung in his wildest fantasy. There is no way to predict at present how the individual will link into the global mind, but there is no reason to think that ultimately more effort will be required than to link into each person's own brain today.

2. The technology of transportation turns the world (and, in time, other worlds as well) into a single village, in the true sense of the term -- namely, the movement of persons and goods from one spot to another globally is no more difficult (in time, energy and expense) than the movement of persons and goods is in a pre-industrial village from one spot to another within the village.

3. The economy of production virtually frees humanity from physical exertion for survival necessities. The production of material goods needed for basic human existence is carried out through routinized procedures that, *like all routinized procedures*, are wholly robotized in a post-industrial economy. In fact, any problem that can be resolved through the application of known algorithms is allocated to machines that either are themselves, or are controlled by, computers. The bulk of people's economic activity is in the cre-

ation of "non-essential" products designed according to the value scheme of the particular culture engaging in the activity. Of course a certain small percentage of the total human energy available will have to be devoted to caring for the essentials -- manning the robots, computers, etc. There are any number of ways this remnant survival effort could be allocated among the population, but the important factor is that, however this work is done, it represents only a minute fraction of the total productive energy.

4. The post-industrial life style, regardless of the culture which embraces it, places high value on such traits as *creativity, originality, aesthetic satisfaction, beauty, understanding, insight, curiosity, scholarliness, and wisdom.* Age becomes irrelevant; young and old alike, if they exhibit any of the universally admired traits, find respect and reverence at the hands of their fellow men. The post-industrial society is a fertile garden for the flourishing of the human spirit, in harmony with itself. Material possessions, in their abundance, lose their hold on the post-industrial psyche. Possession, gain, wealth, ownership, competition, internecine strife, jealousy, envy, all are irrelevant to the post-industrial human soul, which instead is engaged in the perpetual internally-driven wrestling to reveal new secrets, create new patterns, conquer new worlds of the mind.

Indeed, the post-industrial life style has much in common with the *ideal* pre-industrial life style, as depicted widely in pre-industrial cultures -- the Garden of Eden, or the "end of days." In both, mankind is provided with the necessities for physical survival at a minimum of human exertion, and human existence

attains the full realization of its inherent spiritual essence.

There is, however, a key difference between the pre- and post-industrial life styles, and this difference, in turn, determines an essential difference between the cultures that embrace these life styles. The limitations imposed on communications, transportation and economy in the pre-industrial life style create limitations in the physical domain that can be effectively occupied by a culture. I have called this domain a "village," although it was often quite large; by using the word "village" I have tried to convey the notion that some physical limitations did exist, wherever they were located. Pre-industrial cultures, as I have already pointed out, could thus develop in veritable isolation from each other, without the imposition of human constraints. The pre-industrial globe was thus a conglomerate of cultural islands, large in number, stabilized through isolation.

The post-industrial life styles makes the whole planet the "village" of each and every post-industrial culture, all of which are therefore in perpetual contact and intermingling with each other. The long-term stability of a post-industrial planet (by which I mean a planet containing more than one post-industrial culture, although not necessarily one in which all cultures are post-industrial) thus requires the entire subset of post-industrial cultures to be linked in a global superculture which embodies the (partial) value scheme of *cultural pluralism* that I have outlined and discussed earlier in Section III.

What the particular value-concepts will be that define the global superculture at any time are, of course, unknown to me or to anyone at this time in

history; but we can see quite clearly that every independent culture forming a component of this global superculture will, of necessity, have accommodated itself to the existence of the superculture and will have embodied the superculture's partial value scheme into its own unique cultural value system in a manner that permits the possibility (although it can never guarantee the inevitability) of long-term stability of that culture within the global village. The role that physical *isolation* played in stabilizing pre-industrial cultures is thus replaced by the role of *inclusion* of supercultural values within particularistic cultural value systems in a global setting of cultural pluralism.

My use of the terms "pre-industrial," "industrial," and "post-industrial" indicates a temporal ordering of these three life styles in the framework of human history. Such is indeed the case, the third of these not having yet appeared on the scene, although visible in outline on the horizon of time. But temporal succession should not be taken to indicate the historical inevitability of transition from one of these life styles to another. Such a transition is not a historical necessity, nor does it always occur. The failure to comprehend the difference between the appearance of events at different times and a causal linkage between these events has created much misery for the human race, rarely more than in this instance.

A great many pre-industrial cultures have chosen (well into the industrial historic era) to avoid adopting the industrial life style, and have sought to stabilize their continued existence through physical isolation (effected either by remoteness or by self-installed barriers). Most, if nct all, such cultures have found ways to incorporate new value concepts into their

traditional value systems, concepts that enable them to survive contact with industrial societies without compromising their cultural integrity.

It is quite likely that many pre-industrial cultures will continue to prefer their life style even after the emergence of the post-industrial cultures. This choice should present no difficulty, as the commitment of post-industrial cultures to cultural pluralism will enable all cultures to co-exist without threat of confrontation or domination[25].

An eloquent example of a pre-industrial response to efforts of an industrial culture to coopt it was reported over two hundred years ago by Benjamin Franklin, who told how Indian leaders reacted to an offer to educate Indian youth:

> *But you who are wise, must know that different Nations have different Conceptions of things; and you will therefore not take it amiss,*

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[25] Part of the challenge of dealing with pre-industrial cultures in a culturally pluralistic milieu is developing national educational policies that allow for cultural diversity. Thus, for example, one study concludes that "no policy that does not recognize both the right to self-determination and the heterogeneity of American native peoples is likely to be successful, for if schools are to assist in the education and socialization of Indian children and youth, they must recognize and respect the vast basic differences among the Indian peoples. Moreover, the schools must support the efforts of Native Americans to retain those aspects of their cultural identity that they still value [and] to develop those new social and political institutions Indians might view as necessary to help them in the process of adapting their community life to contemporary needs." Estelle Fuchs and Robert J. Havighurst, *To Live on This Earth: American Indian Education* (Garden City: Doubleday, 1972) pp. 24-26.

if our Ideas of this kind of Education [i.e., European education] happen not to be the same with yours. We have had some Experience of it; Several of our young people were formerly brought up at the Colleges of the Northern Provinces; they were instructed in all your Sciences; but, when they came back to us, they were bad Runners, ignorant of every means of living in the Woods, unable to bear either Cold or Hunger, knew neither how to build a Cabin, take a Deer, or kill an Enemy, spoke our Language imperfectly, were therefore neither fit for Hunters, Warriors, nor Counsellors; they were totally good for nothing. We are however not the less oblig'd by your kind Offer, tho' we decline accepting it; and, to show our grateful Sense of it, if the Gentlemen of Virginia will send us a Dozen of their Sons, we will take great Care of their Education, instruct them in all we know, and make MEN of them[26].

Two centuries later, the American Indian Congress of 1961 declared:

In order to give recognition to certain basic philosophies by which the Indian People live, we, the Indian People, must be governed by principles in a democratic manner with a right to choose our way of life. Since our Indian culture is threatened by presumption of being absorbed by the American society, we believe we have the responsibility of preserving our pre-

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[26] *The Papers of Benjamin Franklin*, ed. Leonard W. Labaree et. al. (New Haven: Yale University Press, 1961) Vol. IV, pp. 481-483.

> *cious heritage. We believe that the Indians must provide the adjustment and thus freely advance with dignity to a better life*[27].

By the same token, it would not surprise me if many cultures embracing the industrial life style sought to maintain it long after post-industrial life styles emerge. In my opinion, the internal and external tensions that tear at all industrial cultures make it unlikely that any industrial culture can enjoy long-term stability (in the historical perspective of time). I am convinced that every industrial culture will ultimately disintegrate, and that the individuals born into these cultures will ultimately choose non-industrial life styles.

The availability of only one clear alternative, the pre-industrial life style, at the present time has made it easier for industrial societies to continue to survive, because departure from the industrial lifestyle is equated to deprivation of the material benefits of that lifestyle. Thus, the vast majority of those living within industrial societies gaze with horror at the "backwardness," "poverty," and "lack of comfort" they perceive in pre-industrial cultures, even where those cultures would laugh at being characterized in this way. As post-industrial alternatives become available in addition to pre-industrial alternatives, the disintegration of industrial cultures will be hastened. People in industrial societies will perceive post-industrial cultures as societies in which they can retain all their material goods, without the attendant tensions. What they will not understand, until well immersed in the post-industrial existence, is that the very need to amass material

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[27] *Declaration of Indian Purpose*, American Indian Chicago Conference (Chicago: U. of Chicago, Dept of Anthropology, 1961) p. 4.

goods will be absent in the post-industrial life, and so the very factor which will attract them out of their industrial society will become irrelevant after the transition is made.

It is likely that the process of disengagement from the industrial life style will cause much chaos and suffering in certain (but not all) industrial cultures. Transitions as fundamental as these usually create upheavals, as history has witnessed throughout the ages.

PART III

Looking Forward

11 *Raising Children in the Post-industrial Age*

Learning in post-industrial cultures allows free range to all facets of self-motivated exploration, as this is the essence of man that has been allowed to flourish freely in such cultures. Instruction is at all times in response to requests initiated by the learner, who at a particular time is seeking enlightenment from a master in certain defined areas of knowledge. The post-industrial society has no need to direct the activities of individuals along any predetermined path in order to sustain itself, as all activities necessary for survival have been taken care of with little human intervention.

The chief productive learning activity in post-industrial cultures is *unfettered* model-building, as that word has been defined earlier. Free-form model-building is the prevalent mode of interaction between each individual and the environment. The industrial distinctions between art, science, technology, philosophy, religion, and practical wisdom -- distinctions either lacking or blurred in pre-industrial cultures -- are entirely absent in post-industrial cultures. Imagination, given form through model building activity, informs all mental pursuits, and such concepts as *beauty*, *spirit*, and *appropriateness* weave in and out of every creation of the mind. Stability and continuity is ensured for each culture by the transmission of its

value-system and its traditional world-views to children (and immigrants) through immersion of these novices in the cultural milieu. The primary social unit that is the agent of immersion is the post-industrial *clan*.

I use the word *clan* to convey a concept that can only be roughly grasped at this time. Since man is a social animal by nature, man always seeks to create or become part of social groups that give him stability, support, and a degree of nurturing. Any individual may remain associated with one group for life, or wander from one group to another, as the case may be; the fact of post-industrial global mobility makes the potential nomadic range of each individual the entire planet. I denote these meta-stable or stable groups *clans*, and they may be anything from a nuclear family to an extended family to a tribe to a village to a mono-cultural nation-state. Cultural homogeneity must prevail within the clan to afford it the necessary basis for mutually supportive psycho-social interaction; and, in turn, a culture may consist of any number of clans, in any physical locations -- they are culture's building-blocks.

The clan is the primary means whereby a culture assures whatever continuity it may attain, and it is through the clan's intimate human interactions that individuals are initiated into the culture in a lengthy, gradual process whereby each individual absorbs the value scheme and over-arching world-view of the culture. This absorption is most common in children, who biologically require several years to mature enough to fend for themselves. Those years, spent in the nourishing environment of the clan (which, collectively, is the parenting principle for the child), enable the culture to embed deeply within the child's mind the whole interconnecting network of value concepts that constitute the culture.

Against this background, with cultural continuity attended to by the clan, post-industrial cultures consist of individuals who are free to exercise to its fullest extent the unique model-building capabilities of the human mind[28]. Driven by internal evolutionary biological forces that impel the mind to explore relentlessly, every individual seeks his own path to the construction of self-satisfying models. The criteria for success in this effort, as judged by the individual and by others, are essentially *aesthetic* in nature -- that is, they are a matter of *taste*, however that term derives meaning for each person. Indeed, one can say without qualification that in a post-industrial culture, life is an *art form*, in the broadest understanding of that term. The only aspects of any specific pursuit that engage the attention of post-industrial societies are the creative, the harmonious, the beautiful.

The dominant free-form model-building activity is called *play*, and is engaged in at all stages of life by post-industrial people. This broad use of the word "play" is not as idiosyncratic as it may seem at first. Although the chief use of the word today is reserved for children's activities (or "child-like" activity) that appear to have no direct practical use, the broader meaning shows through in expressions such as "playing with an idea," where the exploratory and conformational aspects of model-building are alluded to. Play includes experimentation with alternative constructs, problem-recognition and problem-solving, creation of successful world-views, and utilization of the created structures.

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[28] One of the early pioneers in comprehending this altogether unobvious fact was Robert Fuller, who discussed them at length with me and with Peter Putnam in the early and mid 'sixties. Although his work in this area has never been published, many of his ideas were outlined in an unpublished manuscript entitled "Educating Model Builders" and dated March 18, 1964.

The more elaborate the play, the more elaborate the created model. Whatever the field, play can lead to successful outcomes that range from variations on a theme to whole new constructive inventions that embrace a large domain[29].

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[29] Joseph Chilton Pearce, in *Magical Child* (New York: Dutton, 1977), discusses the essential features of play at length, especially as manifest in children. On p. 143: "While the child plays on the surface, the great work goes on beneath. Regulatory feedback, conceptual construction, and synthesis, all the mechanics of learning, are nonconscious procedures. Awareness is the end result ... The child plays at imagination, creating images not present to the senses; s/he plays at fantasy, bending the world to his/her desire, taking some object present to his/her senses and transferring it in his/her mind/brain; or s/he plays at imitating, becoming the hero-heroine model by imitating the model's precise actions and so assuming the model's dominion over the world. And what does every child believe every adult capable of doing? Of actually being able to bend the world to an inner desire, exactly what the child is busily practicing in his/her passionate play. And what does every child dream? Of possessing his/her own powers over the world when s/he grows up. And how are these powers developed? By the child following his/her intent. And what is that intent? To play." And again (p. 145): "Play is not evasion of a grim survival necessity; it is in the service of survival ... imposing an inner imaginary construct (not present to the senses) on an actual concrete event of the world (available to the senses)." Pearce (*ibid.*) realizes a great truth, the central feature of a post-industrial world (of whose existence he is not explicitly aware): "When a line forms between child play and adult work, the interaction between human and earth collapses ... The problem set for us is not to try to turn back to aboriginal man; that is impossible. The problem, if we are to survive, is to erase the line between work and play."

Inexperienced persons, seeking to enter a new field of interest[30], begin with modest play, called *practice*. As they get better, they become better model-builders, and soon join the ranks of proficient players in the field. An adult individual is usually proficient in many areas, and for the most part will venture out to practice in new fields without undoing his successful constructs in most of the fields in which he has already played proficiently. A child, by contrast, starts life as an inexperienced player in virtually every field of interest, and spends his early years -- an indeterminate number, varying greatly from child to child -- engaged exclusively or predominantly in practice play (*child's play*, as it is referred to)[31]. Usually, around the ages of between

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[30] A *field of interest* is little more than a cluster of models that have some specific elements in common. Thus, contact and familiarity with a model encompassed within a field of interest is an opening to free roaming among the full set of related models that constitute the field. That is why one often only needs to be intrigued by a glancing interaction with just one model within the field to become enchanted by, and strongly drawn to, the field as a whole as an area of serious exploration.

[31] One of the prettiest examples of this that I have ever encountered is the following vignette from *The Vision* by Tom Brown, Jr. (New York: Berkley, 1988), on pp. 75-76: "I was cutting through a local playground at the end of the [New Jersey] Pine Barrens ... By the stream that cut through the lower end of the woods a small child played, his mother sitting close by reading. I stopped and stood by the edge of the water, a little downstream from them, watching them. When I realized how much the mother was missing, I vowed never to read in the woods; this was an activity better accomplished within the confines of four walls. Important as this lesson was, the child playing by the stream was to pass on the more profound teaching. He played at the water's edge with a fallen

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four and six, most children become proficient enough in some areas to achieve a modicum of physical independence in the society. But the practice playing for the endeavors of adult life goes on for many years more. Indeed, some people never "grow up," never stop having child's play as their predominant activity. And such people can be tolerated and sustained by a post-industrial society without the least strain on the economy -- something that pre-industrial societies are predisposed to do but often cannot afford to[32].

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[31](...continued)
leaf. For the longest time I watched as he sailed his little leaf from one place to another, squealing with delight and laughter as it chased the water bugs over the surface.

"The child looked up from the leaf at each nuance and surge of the woods; nothing seemed to escape him. Each thing was new and delighted him, sometimes to laughter and sometimes to awe. I could sense a timelessness about him, and unconditional play and curiosity, as he seemed to relish each moment. I could feel a longing deep inside me for that quest for play and joy, for being like a child again. Even though I was only a few years older than he, I had stuffed the child deep within me for fear that someone would think I was childish.

"I began to imitate the child, using my own leaf. I soon lost myself to that child within, letting go with spontaneous laughter whenever the urge hit me. I let go of the restrictions I had placed on myself and began to feel fully alive. I decided that if society could not separate being childish from being childlike, then that was its concern. That child taught me a great lesson: to be a child again, to let go of time, and to keep the purity of play and curiosity alive, no matter how old I was."

[32] Even scholars who have done extensive research on the nature of play often miss entirely its significance in the everyday post-industrial scene, adhering instead to industrial-age attitudes that appear singularly archaic. Thus, for example, Alasdair Roberts, in his charming and exhaustive book *Out to*
(continued...)

The reader will notice some strong commonalities between the child's activity in both pre- and post-industrial cultures. There are deep similarities -- primarily in the predominance of free-form child's play as the chief activity of young people. There are also deep differences, that lend a different flavor to growing up in the two types of culture. In a pre-industrial culture, the horizons of the clan in which the child matures are severely restricted in content and physical range, due to the communication and transportation constraints that exist in a pre-industrial society. The range of existing fields of interest accessible to a child is small, and the necessities of survival direct much of the child's interest toward the acquisition of adequate survival skills. A pre-industrial child practices model-building within a very restricted range of constructs, with limited tools, with limited time. Occasionally, some rare individual will create wholly new world-views that encompass bold new approaches; but a pre-industrial society, with little excess energy left after survival, can afford to support only a small number of creative free spirits.

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[32](...continued)
Play: The Middle Years of Childhood (Aberdeen: University Press, 1980) uncovers an enormous amount of fascinating material on the play activities of British children in the general age range of 8-13, but cannot keep himself from stating, "The essential thing to remember is, however, that games themselves are childish, even trivial" (p. XVI); and again, "I do not believe that "play is the principal business of childhood above the age of seven...But...the spark of playfulness flares into life during the stretches of time which children *still have the privilege of wasting* ... The games ... are childish, they are social, *they belong to the young.*" (pp. 140-141) [Italics added] This approach is common, but misses the true meaning of play and its central role in post-industrial culture.

Thus, the nature of the adult's pursuits in a pre-industrial society is highly dependent on the circumstances of his birth, on the cultural milieu to which he was born. And it is pointless to speculate what a particular child might become if he were born to another culture. The very act of birth contains within it, visibly, much of a child's destiny, and that destiny necessarily limits the range of existing interests open to a child's scrutiny from among the total number of fields existing on a global scale. This is true as well in industrial societies although less openly acknowledged. There is the illusion perpetuated in industrial circles that the exposure granted to children, and the controlled winnowing process that directs children, on the basis of their performance in the area of exposure, to career choices directed by the society's needs -- there is the illusion that this process counteracts accidents of birth and allows each child to overcome accidental obstacles to realize his potential. This is a deception that is the source of great distress to many, if not most, children. In the first place, the premise is clearly not true, as the major influences of birth in an industrial society are not affected at all by exposure -- e.g., country and region of birth, social, religious, cultural milieu of birth, economic and social class, etc. But the pain of the deception is caused by the patent fraud in claiming that the narrowly delimited options opened to industrial children could possibly reflect the full richness of potential life-pursuits within each of them. Children grow into frustrated adults who are told they are doing what they should be, but who feel deep inside a lack of fulfillment of their deepest, unexpressed, innermost yearnings.

A post-industrial culture presents quite a different aspect. Although the culture into which a child is born may often exercise some filtering effect, through its value system, on the extent to which existing fields of

interest are accessible to the child, the state of post-industrial communication and transportation makes essentially all globally existing interests immediately available at the child's beck and call. Furthermore, the post-industrial economy frees the child from the necessity of devoting much energy to acquiring survival skills. Faced with this *embarrasse de richesse*, a maturing child, fettered in no visible way by a restrictive destiny, must create or discover his destiny from scratch in an environment of dazzling or bewildering beauty and variety. *Nothing at all* is presently known about the way in which this momentous event -- the individual's recognition of his destiny -- takes place in a post-industrial society. All that we can be sure of is that on the whole a post-industrial culture must needs be patient in allowing extensive practice to take place, and that child's play is engaged in for an extended period of time by most children as they mature. Since the global environment is physically safe, it is not even possible to imagine at this time the locales in which child's play will take place.

It is important not to jump into this vacuum of knowledge and fill it with speculation that may lead to devastatingly destructive outcomes. We must be willing to acknowledge our present complete ignorance of these mechanisms, and wait patiently for the emergence of post-industrial cultures to get a handle on what might happen. I am not advocating an inductive approach to the problem; the answers will not "emerge" from the data. But we do not even have enough building blocks at hand to start constructing models or creating theoretical frameworks.

12 *The Need for a New Type of School*

My chief concern here is education and my main interest is understanding the nature of schooling in contemporary America. This country today is clearly determined to move into a post-industrial life style (except for a tiny minority who, agreeing with the majority that the industrial life style should no longer be the prevailing standard, seek instead to transfer to a pre-industrial life style). The last four decades of the 20th century, and doubtless a considerable part of the 21st century, have been and will be devoted to bringing about the desired transition.

The education of children is one of the very last things to change in a culture that is undergoing transition. This is to be expected, since the way children mature determines the whole future course of the culture and this should be tampered with only when the culture clearly understands where it is headed. For example, the move to create schools for children in this country that would control them in the manner required for an industrial life style happened long after the country had placed itself firmly in the industrial era, and took many decades to achieve. Even when the powers prevailing in the country saw the type of end result they wished to achieve in schooling, it took a

long and continuing struggle to get the mass of adults to go along.

Today, the schools in this country are model industrial schools, and have been for most of a century. They have carefully modified themselves in step with the modifications that occurred in the industrial economy, and they have served that economy well. But the schools as they exist are no more relevant to the post-industrial life style into which America is headed than are any of the other trappings of the industrial society. And, more important, the existing school system is not even adequate today, in the transition period, a fact that is widely recognized by educators and laymen alike.

During the transition period, all the key elements of the life-style that I have enumerated above undergo transformation, sometimes by small steps, other times by quantum leaps. For much of the period, old obsolete elements coexist side by side with new elements. Assembly lines manned by laborers exist next to fully robotized factories; cars coexist with rockets (which themselves are not yet post-industrial); manuscripts coexist with satellite-transmitted telexes (also not fully post-industrial); etc. The coexistence of old and new is a historic necessity, and is the only factor that allows people to accommodate to the new life-style, even though it in itself is unsettling and destabilizing.

Nothing is more important for a society to know than the simple historical necessity that it must always be prepared to endure and cope with upheavals throughout the transition period. A desire for peace and stability is an escapist dream that can only be realized if the society chooses to abandon its effort to change life-styles and remain instead in the existing one. For America, it is too late to undo the decision, as it has been made fully two score years ago and is well

on its way to achievement. The turmoil attendant on the transition burst onto the American scene in the 1960's. with some serious harbingers in the preceding decade. Despite periods of waxing and waning, there is widespread popular recognition that instability is the order of the day, and the attendant insecurity leads to occasional violent swings in the society and in the economy.

What shall we do, then, with our schools in this transition period? Clearly we cannot simply dismantle the industrial schools; those must continue in existence in ever decreasing number, as long as there is an industrial sector of the economy to serve. Nor can we simply create a post-industrial environment for children, as we do not at present know what such an environment will be like, nor will we fully understand it until well after the post-industrial society has been established and operative.

What we can and must do is create transition schools, in ever increasing numbers, to embody as many elements of the post-industrial educational milieu as can be comprehended currently; and as the depth of our understanding of the post-industrial society increases, so too the form of transition schools will change and approach the ultimate post-industrial educational environment. At any moment in the transition period, transition schools must be nurtured by the society as alternatives available to all for the education of youth; the natural inertia of any large society will see to it on its own that the population of these alternative transition schools will grow slowly, more or less in pace with the rate of transition of American society as a whole.

When I say "we must do" this or that, I am making a policy recommendation, in the hope that a measure of foresight can do something to ease the pain of the transition. Whether or not such steps will be taken by

those who have the power to do so, the transition schools will appear as a historical necessity, even without official recognition or support and even in the face of opposition. It is in our hands, as intelligent commentators on current affairs, to help the nation pass through the transition as smoothly as possible.

13 *Transition Schools*

What, then, can be said about the necessary characteristics of a transition school? The answer is: much and little. Much, in broad terms of underlying concept and form; little, in specific constructive detail that would serve to narrow the range of viable operating schools[33].

Let me start with the purely educational side of the question. The dominant learning activity of a transi-

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[33] An attempt to discern the requirements of transition-era education for children is made, albeit haltingly and sketchily, by Ralph W. Larkin, *Suburban Youth in Cultural Crisis* (New York: Oxford, 1979), especially in Chapter 7, "Youth and Depredation of Everyday Life" (pp. 203-224). As Larkin puts it (p. 218), "the presentation of an alternative to present society can only be done in broad strokes, giving only a crude hint of what is possible." Alas, Larkin catches only the merest glimpse, summarized in a brief tantalizing paragraph (p. 223): "As necessary labor is reduced to its minimum, the necessity for segregating the young into babysitting institutions would decline. The young could then be integrated into the community as socially necessary persons who would contribute to the social wealth along with everyone else, commensurate with their level of skills. The family, community, and peer group would assume reciprocal responsibilities for the socialization of the young and they, in turn, would have the right to self-determination to follow their own dictates outside the provision of necessary services from all to all."

tion school must be practice model-building, or child's play. This above all. Free-form, unfettered model-building by each individual -- no restrictions, no controls, no direction, no barriers. Nothing less will prepare a child to be an adult fit to function in a post-industrial society[34].

But there are, in the transition period, certain restrictions and constraints. The transition environment is not safe for children who roam freely; it is filled with unknown hazards of technological origin. Nor do the vast majority of adults, including parents, have sufficient leisure to take care of their survival needs and be around to keep an eye on their children or those of their friends. Most adults spend the heart of most days in isolated workplaces from which they are not at liberty to depart at will during working hours.

These two restrictions, whose severity eases as the transition progresses towards a post-industrial lifestyle, have certain consequences for growing children and their education. The chief negative consequence is that during the transition period institutions are needed that will incarcerate children -- keep them off the streets, in a safe surrounding, and under the general care of adults chosen to fill a caretaker function. Thus *schools* are still a *necessity* throughout the transition period, not merely an inertial carryover from industrial times[35].

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[34] See Appendix C for a brief description of the role of play in The Sudbury Valley School.

[35] Efforts to "de-school" society have little relevance to transitioning countries such as the U.S. Nor do movements to promote schooling at home by nuclear families address the needs of any significant portion of the society, although they are a marginal form of transition schooling that meet some of the criteria of de-industrialization of schooling. For the most part,

(continued...)

But the transition schools must reflect the ever-increasing safety of the surroundings, and the ever-increasing availability of time to the adults who form the clan into which the child is born. The loosening of controls during the transition period, which ends in a post-industrial society consisting of a free citizenry, must take place in the transition schools as well, if they are to be appropriate nurturing grounds for the adults who will mature from the children in the schools. Thus transition schools must be open campuses to some extent; must allow for the flow of interactions between adults in the outside community (including parents) and students; and must stress freedom as a concretized value-concept.

Transition schools in America must also play a special role in assuring the continuity of American culture. I have discussed earlier the key socio-political value-concepts that are at the heart of the dominant American culture, and we have seen how they are in perpetual tension with the very nature of industrial era schools. Transition schools must remove this tension, just as the post-industrial era removes the internal tensions between the values of American culture and the needs of an industrial society. Transition schools must reflect as fully as possible the ideals of the dominant American culture, so that the new generation is prepared to live with their ideals without internal contradiction. In other words, transition schools must themselves be embodiments of the democratic value

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[35](...continued)
a marginal form of transition schooling that meet some of the criteria of de-industrialization of schooling. For the most part, home schooling is tied up with requirements imposed by the prevailing industrial educational establishment, and so allows little variation from the prevailing educational practices of industrial schools.

scheme that constitutes the socio-political group of value-concepts in American culture. Immersion of children in the school environment, away from the clan environment, for lengthy periods of time will, in transition schools, provide for the transmission of American cultural value-concepts from one generation to the next, in the natural manner by which values are transmitted, and with the internalization and stability that is typical of this natural mechanism for transmission of values from one generation to another.

The essential outlines of American transition schools are thus clearly drawn. First and foremost, they must be schools -- i.e. specified loci in which children are congregated for some parts of some days. Since the manner of maturation in a post-industrial society is not yet evident, it is not known at present whether schools as an institution will survive the transition period; but they will somehow exist throughout that period. American transition schools must have a learning environment in which unfettered child's play is the dominant learning activity, without any of the instructional controls imposed in industrial schools (e.g., curricula). As such, transition schools are in harmony at one and the same time with the socio-economic nature of the post-industrial life style and with the American group of value-concepts that are centered on innovation as a key cultural ideal. Finally, American transition schools must themselves be practicing models of the American socio-political group of values that center on democracy as the key value. They must, in short, be fully democratic social organizations, with all that implies.

Free, democratic schools -- these are American transition schools[36]. To make the transition from industrial to post-industrial times, such schools must be set up in ever increasing numbers in American

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[36] In fact, such schools are probably suitable to other cultures as well. Compare, for example, the following statement by the Swiss psychoanalyst Alice Miller in her remarkable book, *For Your Own Good: Hidden Cruelty in Child-Rearing and the Roots of Violence*; translated by Hildegarde and Hunter Hannum (New York: Farrar, Straus, Giroux, 1983), p. 100: "In contrast to generally accepted beliefs and to the horror of pedagogues, I cannot attribute any positive significance to the word *pedagogy*. I see it as self-defense on the part of adults, as manipulation deriving from their own lack of freedom and their insecurity, which I can certainly understand, although I cannot overlook the inherent dangers. I can also understand why criminals are sent to prison, but I cannot see that deprivation of freedom and prison life, which is geared wholly to conformity, subordination, and submissiveness, can really contribute to the betterment, i.e., the development, of the prisoner. There is in the word *pedagogy* the suggestion of certain goals that the charge is meant to achieve -- and this limits his or her possibilities for development from the start. But an honest rejection of all forms of manipulation and of the idea of setting goals does not mean that one simply leaves children to their own devices. For children need a large measure of emotional and physical *support* from the adult. This support must include the following elements if they are to develop their full potential:

"1. Respect for the child
"2. Respect for his rights
"3. Tolerance for his feelings
"4. Willingness to learn from his behavior:
   a. About the nature of the individual child
   b. About the child in the parents themselves
   c. About the nature of emotional life, which can be observed much more clearly in the child than in the adult because the child can experience his feelings much more intensely and, optimally, more undisguisedly than an adult." [Italics in original]

society. Historical necessity will assume that this process will take place, but we can help make the transition period a bit less traumatic if we as a society encourage and nurture the formation of such schools in an orderly fashion throughout this country, rather than wait for each school to be founded through a socially unsettling battle between the providers of industrial era schools and the builders of transition schools. We no longer have a choice as to whether transition schools will be created, just as we no longer have a choice as to whether America will make a transition to a post-industrial society. But we have many choices along the way that can make the transition more tranquil, and in the field of education these choices boil down to either encouraging or discouraging the founding of transition schools in our various communities.

14 *Education Beyond Schools*

There is a final point to be considered, one that is shrouded in mystery at this stage of human understanding. That point is the question of how each human child, as he matures, defines his destiny in life. In a pre-industrial society this is done for the most part by model-building within a relatively limited environment. The choices open to a child are not all that numerous; they are defined by his limited geographical range and are usually known to him at a very early age. He thus has a chance to practice -- to play with -- most of the available options, and to reach in some unknown manner (through introspection and through interactions with others) a choice of a life calling. On rare occasions, a person may even create radically new world-views embodying new models for human activity.

In an industrial society, although once again a few rare individuals may provide radical innovation, the bulk of the population has its choice limited by the economic requirements of the industrial society. The process of individual choice involves the consideration of the relatively few options allowed to each person, and some means of agreeing on an ultimate outcome, in which the individual concerned has limited freedom. As we saw above, in a post-industrial society, where

communications and transportation make the whole world readily accessible to each person, we have no idea at this time how life-choices will be made. What filtering process each child will use is at present a mystery.

Career choices in a transition society are also all but impossible to understand, and it is probably through the observation and study of these choices that humanity will gain insight into the process as it will take place in a post-industrial society. Some features, albeit few, are now known. A transition society allows freedom of choice and innovation to an ever-increasing number of members of the population, and many of those can be expected to be involved with transition schools. Furthermore, the ever-growing freedom to build new models in a transition society leads to a rapid increase in models available to each person, which in turn stimulates an increasing variety of new models. Additionally, rapid development of communications and transportation makes the accessibility of models developed world-wide ever easier for each adult and child.

It is evident from a consideration of these factors that a transition school cannot seek to provide within its geographical confines immediate access to even a small fraction of the current models employed by humanity world-wide, nor can it provide the setting for each person within its confines to develop an unlimited number of new models. Thus the transition school, which is the setting for unfettered child's play, cannot expect to be -- except in isolated circumstances -- the setting for the ultimate focussing and concentration on the domain of play that becomes a career choice. The transition school must therefore have, in addition to the

features outlined above, an openness to the world beyond its boundaries, which allows each child, when ready, to engage in forays into the world outside the school -- forays of varying distance and length of time, while the school is used as a base for practice model building (rest, meditation, play) between forays until such a base is no longer needed.

A FINAL NOTE

Driven at first by a deep-seated discontent with the nature of the prevailing American system of education, I have sought to gain insight into the underlying forces which determine the character of a society's educational practices. An examination of fundamentals leads, as expected, to a more thorough understanding, and provides the basis for action to meet the needs of the present and the near future.

America will continue to drive ahead with its passage to a post-industrial life style. One way or another, to the accompaniment of social upheavals of greater or lesser intensity, this culture will emerge into a different techno-economic era. The role of responsible leadership during this difficult period is to provide the populace with as much comprehension as possible of what is happening to America, and to do whatever can be done to lessen human suffering (both physical and mental) and to lessen the pain of setting forth into fearful unknown territories.

The schools are a small but important segment of the society as a whole. But they too participate in the transition, and their leaders too must bear their share of responsibility for understanding events and providing for the future. To the degree that the educational leadership misses the significance of the transition taking place in America today, and remains rooted in

the industrial culture into which it was for the most part born, that leadership is doing the country a great disservice and contributing to the perpetuation and increase of much misery.

In these times of change, educators must inform the public at large, by every means at their disposal, of what is taking place in education, where education is headed, and how society can make adequate provisions therefor; and the educational leadership, both professional and lay, owe it to the people of America to participate actively in the development of a growing number of transition schools for the greater public good.

APPENDIX A

Publications of The Sudbury Valley School Dealing with Educational Theory

I. Books

The Sudbury Valley School Experience, (2nd ed., 1987)

Free At Last: The Sudbury Valley School, (1991) by Daniel Greenberg

The Crisis in American Education: An Analysis and a Proposal, (1970)

"Announcing a New School . . . ": A Personal Account of the Beginnings of The Sudbury Valley School, (1973) by Daniel Greenberg

Outline of a New Philosophy, (1974) by Daniel Greenberg

Child Rearing, (1987) by Daniel Greenberg

II. Pamphlets

"And Now for Something Completely Different . . .": An Introduction to Sudbury Valley School, (1986)

Sudbury Valley School and "The Real World": What Former Students Have Been Doing Since They Left, 1992

About the Sudbury Valley School, (1968)

III. Essays, Not in Print

"Opinions and Comments on the Future Educational Environment of the Sudbury Valley School," (1972)

"The School's Relationship to the Outside Community," (1972)

"The Principles of Administration: as applied, in particular, to democratic schools, with special reference to the experience of The Sudbury Valley School," (1974)

"An Evaluation of the Sudbury Valley School. With an Appendix: The Goals of American Education -- Where are they?" by Daniel Greenberg (1969)

"Memorandum to the Sudbury Valley School" by Daniel Greenberg (1970)

"Revolution or Reform? Thoughts on the Character, Strategy, and Destiny of the Sudbury Valley School" by Daniel Greenberg (1970)

"Right, Left, and Center: Where Does the Sudbury Valley School Lie on the Sociopolitical Spectrum?" by Daniel Greenberg (1972)

"Reflections on the 1971-1972 Trustees' Study on Former Students" by Phyllis Toback (1973)

"Aspects of Community: The Ethical Basis of Sudbury Valley School" by William Simmons (1975)

"Equality and Personal Responsibility" by William Simmons (1976)

"A Philosophy of Teaching" by Harry Hodgdon (1975)

"Great Dictators and Little Followers" by Daniel Greenberg (1975)

All the above have been published by, and are available from, Sudbury Valley School Press, 2 Winch Street, Framingham, MA 01701. The Press also publishes a periodical, *The Sudbury Valley School Newsletter*, containing articles on educational and philosophical questions of current concern to the school. Subscriptions are available and back issues, as well as copies of the out-of-print essays listed above, can be obtained through special arrangement with the Press.

APPENDIX B

A Brief Summary of the Theory of Organic Thinking, as Explained in the Words of its First Theoretician, Max Kadushin

Social values or ideals cannot be coordinated into a logical system. Whenever this has been attempted, religion has been constricted into dogmas and ethics hardened into the rules of the doctrinaire. Logic has its rightful place, to be sure, in these enterprises of the human mind and spirit, but when it seeks to lay the foundations of conduct its efforts are futile when they are not harmful. A well-ordered, logical, hence uniform, system negates that very complexity which is the chief characteristic of human motives and conduct. It takes no account of the differences between individuals, nor of the uniqueness of every ethical situation. In short, it runs counter to all the forces and factors that make the human scene human.

Every historic group possesses its own distinctive traditions, every individual his own peculiar character, every ethical situation its own unique quality. If no order whatsoever inhered within such variety, then any attempt to study human institutions were foredoomed to failure. On the other hand, should we impose a logical order upon these institutions, then the variety

which distinguishes them disappears from view. Is there no alternative here between chaos and logic? . . . I believe that there is an alternative; and that in discovering it we come upon an articulation of thought and values more complicated than that which can be devised by logic, complicated and flexible enough, indeed, to allow for both the variety of mankind's traditions and the distinctiveness of the individual's character. . . . This type of thinking, . . . is universal, whilst local in content and individualistic in configuration. It is not logical but organismic: Each organismic pattern of thought or organic complex has its own distinctive individuality, -- each social pattern and each individual variation of it.

To attempt to define exactly the scope of the sphere of value and conduct is to attempt an impossible task. It includes all social relationships, to be sure, but also much more than that. Man's attitude toward the earth from which he draws his sustenance, toward the animals, toward the very skills with which he is endowed are to be included in the scope of value and conduct. . . . In fact one may say that under certain circumstances almost anything may fall within that scope. Yet that does not mean that the valuational life is chaotic, formless. Whatever the particular instance in question may be, it is always subsumed under a generalizing concept, and all such concepts are organically related to one another.

The valuational life, it must be noted, is not "raw experience". . . . Indeed, either experience is made significant by a generalization, a concept of some kind, or else what happens does not register at all. Without concepts which organize and interpret, the concrete,

daily life of man would be without variation whatsoever and could hardly be characterized as human. There would certainly be no difference, for example, between the giving of short and of honest weight if there were no concept of honesty, and without the concept of kindness such action as giving bread to the hungry would bear no significance or value, even granting that it were possible. If the impression nevertheless persists that the valuational life especially is composed of "raw experience", that impression can be ascribed to the pervasive qualities of the concepts themselves. Concreteness . . . is one of the prime characteristics of the organic complex of concepts and . . . with this concreteness is associated the *effortlessness* of organic thinking. This is another way of saying that we take the organic concepts for granted.

All the organic concepts . . . are integrated with one another, inextricably intertwine with each other. Every organic concept possesses its own individuality and cannot be inferred from any other concept. . . . And, finally, the individuality of the organic concepts and the process of the integration of the organic complex as a whole are not separable, in other words, the *wholeness* of the organic complex and the *particularity* of the individual organic concept are mutually interdependent. Our definition, then, would be: Organic concepts are concepts in a whole complex of concepts none of which can be inferred from the others but all of which are so mutually interrelated that every individual concept, though possessing its own distinctive features, nevertheless depends for its character on the character of the complex as a whole which, in turn, depends on the character of the individual concepts.

Each organic concept, therefore, implicates the whole complex without being completely descriptive of the complex, retaining, at the same time, its own distinctive features. . . .

The general characteristics of the organic complex are the characteristics of the valuational life in general. Let us proceed to take up these general characteristics one by one.

1. *The Concretization of the Concept*: . . . There is a continuous process of the concretization of the concept. We must always remember that we are dealing here with facts of moment-to-moment experience; hence, as the concept is concretized the facts of experience take on meaning thus given them by the concept, are colored by the concept, and to that extent are determined by the concept. . . . Being concrete situations, they need not always be *explicitly* characterized by the concepts which illumine them with significance or meaning. Even when organic concepts are but implicit or imbedded in events, situations, attitudes, facts, the latter are nonetheless seen to be concretizations of the concepts. . . . The organic concepts, then, are continually applied to the constant stream of experience. They canalize that stream, or, to drop the figure, they continually interpret or determine the facts, give meaning to them. Since values lend meaning and significance to life, we have one reason why organic concepts are values.

But life is not one high splendid level of significance, and there are times when the continuity of the process of the concretization of the concept is broken. And here another quality of the organic concept asserts

itself. Every concept is possessed of a *drive* toward concretization. By that, of course, we mean that individuals with whom such concepts are habitual are not passive but strive always to concretize the concept afresh. . . . Values are *active* ideals, continuously striving for fulfillment. . . .

The individual is *aware* of the organic concept. The process of the concretization of the concept is not altogether inevitable, may at times be broken. On such occasions, the individual is made highly aware of the concept that finally determines the situation in question. In this respect, the organic concepts are to be distinguished from the categories of Aristotle, the concretization of the latter being so completely inevitable, the category so infallibly bound up with the concrete fact, that the individual in his ordinary day-to-day existence is entirely unaware of the categories he must perforce employ. It was, indeed, this distinction between the organic concepts and the Aristotelian categories that prevented us from designating the former as categories. . . . Though organic concepts are habitual because they continually impart meaning to things, are continually being concretized, they are not *merely* habitual or mechanical.

Though the organic concepts do not possess the automatic character of the Aristotelian categories, they are not entirely subject to free choice, either. True enough, there is room for choice as to which organic concept shall determine a particular fact or phenomenon -- but the choice lies within the orbit of the organic complex and does not apply to a concept outside of it. The process of the concretization of the organic concept is a constant one and there is no one moment, ordinarily, when the individual can, by main might, stop the

process, drive and all, and insert a new concept up to that moment foreign to his experience. Isolated as he may be at that moment, his reactions to things continue and those reactions are determined by the organic concepts he has always held.

Similarly, there is no such thing as suspended judgment with regard to the organic concepts. There can be no waiting for sufficient facts to accumulate in order to classify them properly, as is the procedure in science. The phenomena of experience within the scope of the valuational life have meaning immediately or else do not register at all. Organic concepts can therefore not be directly produced by experimentation. Our conclusion is, then, that although the individual is highly aware of the organic concepts or values the latter are not completely subject to free choice.

If we take into account the process of the concretization of the concept and the organic character of the complex of concepts, we shall understand why [an organic complex] does not offer formal definitions of its concepts. A formal definition of a concept is a general statement, abstracted from particular instances, which enables us to recognize new instances that can be subsumed under the concept, and which allows us to relate the concept to other concepts within some coordinated system. Now, in [an organic complex] these functions are performed without formal definitions. By means of the process of the concretization of the concept new facts or instances are continually being subsumed or determined. And in the organic complex all concepts are integrally related to one another. . . .

The phenomena of the valuational life are usually interpreted immediately as they occur else they give no

meaning at all. We cannot have, as we have said, suspended judgment with regard to the organic concepts. The truth is that we are dealing here with an aspect of life that is both spontaneous and infinitely varied in shadings, an aspect of life therefore hardly to be confined within the fixed boundaries of formal definitions. Only organic concepts are adequate for such phenomena. We can go so far as to say, then, that values cannot be adequately summed up in general, formal definitions. . . .

2. *Combination of Concepts*: A number of concepts are usually involved at once in any single concrete situation. That is to say, any single concrete situation does not, as a rule, involve the concretization of merely a single organic concept but that of several concepts at once. . . .

The significance that inheres in the situations that make up day-to-day experience depends, then, for its richness, on the range of the organic complex of concepts involved. An organic complex containing a large number of concepts will grasp or interpret a concrete situation in more ways that will a complex with a small number of concepts. The greater effectiveness of the larger complex does not stop there, however. Because of the drive toward concretization, every organic complex creates new situations, new events informed by combinations of concepts, but the larger complex carves out a world beyond grasp of the smaller. For the individual with a large organic complex, therefore, day-to-day experience contains situations, yields significances, of which the man with a small organic complex is absolutely unaware. . . .

The organic relation between the concepts, we can now see, is no mere vagary of the valuational life. Concrete situations are grasped not by one but by a number of concepts at once. For any given situation *as a whole* to be meaningful there must, of course, be some kind of coherence between the concepts, but were that coherence to be of the inferential order, the situation would become apparent to the individual in a piecemeal fashion. The concrete situation is grasped as a whole because the coherence between the concepts in interpreting it is organic and not logical or inferential. . . .

3. *Potential Simultaneity of Concepts*: What makes it possible for a number of organic concepts to grasp any given situation at once is the potential simultaneity of the organic concepts. It is as if the whole complex were constantly trigger-point, ready to pour forth *all* its concepts on any occasion or situation. In saying this we are saying no more than that the complex is organic, of one piece. Each situation has focussed upon it the whole organic complex, and the concepts that are concretized in that situation represent the maximum possible concretization of the whole organic complex. The concepts not concretized or actualized in that situation are not totally irrelevant to the situation for they have the status of concepts that were potentially relevant. This conforms to the conclusion reached above that each organic concept implicates the whole complex. Organic concepts or values, then, possess the characteristic of potential simultaneity.

The simultaneity of the organic concepts is potential and not actual. For the concretization of the whole

complex is always limited by two factors -- the temperament or mood of the individual and the circumstances in which the individual is placed. . . .

The potential simultaneity of concepts means that the whole complex is brought into play upon every situation. . . . There is nothing static about the way in which the organic concepts function because every change in circumstances brings with it new concretizations of the concepts. More, the concepts are dynamic drives actually creating new situations. If by experiential concepts we mean concepts which correspond completely with actual experience, then organic concepts or values are *experiential concepts*.

The potential simultaneity of concepts also means that organic concepts or values are connotative of one another. Aside from the concepts involved explicitly in any given situation, all the rest which were potentially involved are implicit in varying degrees. Those concepts which share the same ground as the concept concretized are immediately connoted, forming, as it were, a circle about that concept, with the rest of the concepts of the complex as a penumbra. . . . In addition to these inner circles, the penumbra of the remainder of the concepts lends further shades of meaning to the concept concretized. For it takes but a little change in the situation to render any of the implicit concepts explicit. Connotation does not involve that step-by-step effortful reasoning characteristic of logical or inferential thinking; hence, organic thinking is *effortless*.

4. *The Element of Paradox*: Because a situation is determined by several concepts at once, paradoxes occur is organic thinking not infrequently. The simultaneity of the concepts is limited, to be sure, but the

limitation is the result of other factors, not that of logical antithesis. . . . We are dealing, then, with things that are logically contradictory but psychologically correct, with interpretations of paradoxical character because a situation may be determined by several organic concepts at once.

5. *The Fluid Character of the Complex*: One of the factors limiting the simultaneity of the concepts is the temperament or mood of the individual. The same situation, therefore, may be interpreted or determined by different concepts, according to the temperaments of different individuals and even according to the different moods of the same individual. Such differences are especially marked when the same or a similar situation is determined at one time by one fundamental concept and at another time by another fundamental concept. . . .

The other factor limiting the simultaneity of the concepts consists of the circumstances or situations in which the individual is placed. Obviously, no sharp line can be drawn between this and the factor just discussed, for the individual's temperament both affects his circumstances and is itself affected by them. Nevertheless, there are many instances where we can see how circumstances directly influence the choice of the determining concepts. . . . The fluid character of the complex permits of great variety in the concretization of the concepts, depending on the circumstances and the historical epochs.

The two factors limiting the simultaneity of the concepts render it inevitable for every individual to have a configuration of the complex all his own. The circumstances of the lives of no two men are identical,

and neither are their temperaments. With the circumstances of an individual limiting the concretization of the concepts in a peculiar and original way and his temperament responding to the circumstances in a like manner, the combination of concepts determining similar situations will likewise be original and tend to be consistent. The result will be a fairly consistent and original configuration of the complex as it is brought into play in the moment-to-moment life of the individual. . . .

6. *The Aspect of Inevitability*: . . . Though the process of concretization is continuous, the concretization of any one concept is inevitable. This dual character can be observed both when the concepts interpret situations or events and when they act as drives in creating new events. . . .

This dual character of the complex affecting as it did a wide range of concepts, made it possible for the individual not only to have an inward life but one wherein intensity of emotion blended with richness of conceptual content. Since the process of concretization was continuous, the experience of the individual was never chaotic but subsumed under a wide variety of concepts. But the concretization of any one concept was never inevitable, never infallible. In a degree however slight, the concretization of any particular concept was always voluntary. There was always a moment of awareness in which the choice was made. And when action was involved or when the internal or external opposition was great, awareness became acute, and the concretization of the concept charged

with profound emotion. . . . Organic concepts or values are, therefore, charged with emotion.

Our conclusion is, then, that the organic complex as a whole is inevitable in the sense that some concept must be concretized, but that the concretization of any particular concept or value is not inevitable. The lack of complete inevitability should not be taken, however, as a flaw in the functioning of the organic complex. On the contrary, the fact that the concretization of any particular concept is not inevitable, and hence not predictable, introduces the factors of novelty and change which inhere in the very constitution of an organism. These factors mark off the organismic from the mechanistic.

By allowing for individual configurations, the organic complex enabled the individual to have a valuational life of his own and yet live in spiritual cooperation and harmony with other individuals. Now, no individual can possibly manage the circumstances confronting him, interpreted though these be by means of the organic complex, without some modicum of logical or inferential thinking. At the very least he must employ the Aristotelian categories to the extent demanded by the common-sense grasp of things. Hence, when wide scope is given for individuality, wide scope is also given for logical or inferential thought. The organic complex . . . provide[s] the living, subtle, flexible framework for inferential reasoning of a very rigorous order.

[The above has been excerpted from Max Kadushin, *Organic Thinking* (New York: The Jewish Theological Seminary of America, 1938), pp. v-vi, and pp. 179-202.]

APPENDIX C

The Role of Play at Sudbury Valley School

[The following is the chapter "Play" from Free At Last: The Sudbury Valley School (1991), by Daniel Greenberg, pp. 79-83.]

Day after day, month after month, a village was slowly taking shape before our eyes. Spread out over a large table appropriated from the art room, the plasticene model almost seemed real.

Often, six or more kids at a time would be huddled over the table for hours, chattering away, as they tried to create perfect miniature replicas of everything they could think of. Horses, trees, cars, trucks, animals, fences, people--everything. Not just any old replicas, but flawless reproductions. There was, for example, a complete "motor" under the (detachable!) hood of every automobile, the whole of which could easily fit into my hand. People finger-high had clothes and features. Roofs had tiles, walls had doors, interior rooms had tables and chairs.

All was made out of plasticene, worked and rolled and modeled and formed. It was a big game. The game lasted over two years.

No one suggested even remotely that these children, aged eight to fourteen (mostly boys), were "doing" art, for example. The idea would have offended them. No staff help was asked for, none was given. To the

participants, it was play. Serious, concentrated, play, great fun without limits.

Every generation at school seems to have its serious "clubs." It usually starts at around nine or ten years old, with an occasional younger hanger-on tolerated, and lasts a year or two for each new group. There is a club, and of course a clubhouse. At first that was an old ramshackle hut in the woods, until that fell down. Later, it was a room in the stables. Then it was a large closet in the main building. Still later, when that was off limits because of fire regulations, the clubhouse could be any "secret" area enclosed, if necessary, by imaginary walls and roof. Furniture had to be spirited into it--an old rug, perhaps; a chair; a table. Rituals had to be invented, plots and plans hatched, spies launched, guards posted. A world of intrigue would be created, filled with complexity. The kids involved were always busy, always terribly concentrated.

Play at school is serious business. I think play is always serious for kids, as well as for adults who haven't forgotten how to play. Professional educators are often troubled by play, mostly because kids devote energy and intelligence to play that far exceeds what they put into schoolwork. Occasionally, to make things more palatable, educational psychologists will write about the value play has in "learning" -- for example, in learning motor skills, or learning creative problem-solving, or something else with a label that sounds legitimate.

The fact is, play is a big part of life at Sudbury Valley. And it is one of the prime factors of learning here. But what is learned is a different lesson than you

might think. What is learned is the ability to concentrate and focus attention unsparingly on the task at hand, without regard for limitations -- no tiredness, no rushing, no need to abandon a hot idea in the middle to go on to something else. This "lesson" is retained for life.

Most of the kids at school, especially the younger ones, are too busy playing to eat or rest all day. By late afternoon, they are ready for a huge meal and a good night's sleep. They've worked long and hard.

As elaborate as the play is, the tools and equipment needed are, to understate it, inexpensive.

When we first were preparing to open the school, we spent long hours allocating our small budget to all sorts of "necessary" play equipment, especially for little kids. We started with the usual collection of stuff you can find in nurseries, kindergartens, and child recreation centers.

As the first years unfolded, we watched in disbelief. The equipment lay almost entirely unused. Much of what was handled was put to wholly different uses than those for which it had been intended.

The chief equipment the kids use is the chairs, the tables, the rooms, the closets, and the outdoors, with its woods and bushes, rocks and secret corners. The primary tool is their imagination.

After twelve years of lying around and occasionally being added to by donations, about three-quarters of the play stuff was put into boxes and stored in the attic. There it sits. The attic is dry, so it will probably last a long time up there.

There are some exceptions. Older kids play board games that they bring in from home: "Monopoly," for

days at a time. "Risk," a fad that lasted four years, and turned the players into geographers and military strategists. And "Dungeons and Dragons," of course, with each player's elaborate collection of accessories carefully assembled and privately owned. I guess "D & D" was more tolerable to outsiders than most games, since in it people "learned" things -- about medieval life, for instance.

We take play seriously here. We wouldn't dream of interfering with it. So it flourishes at all ages. And the graduates who leave school go out into the world knowing how to give their all to whatever they're doing, and still remembering how to laugh and enjoy life as it comes.